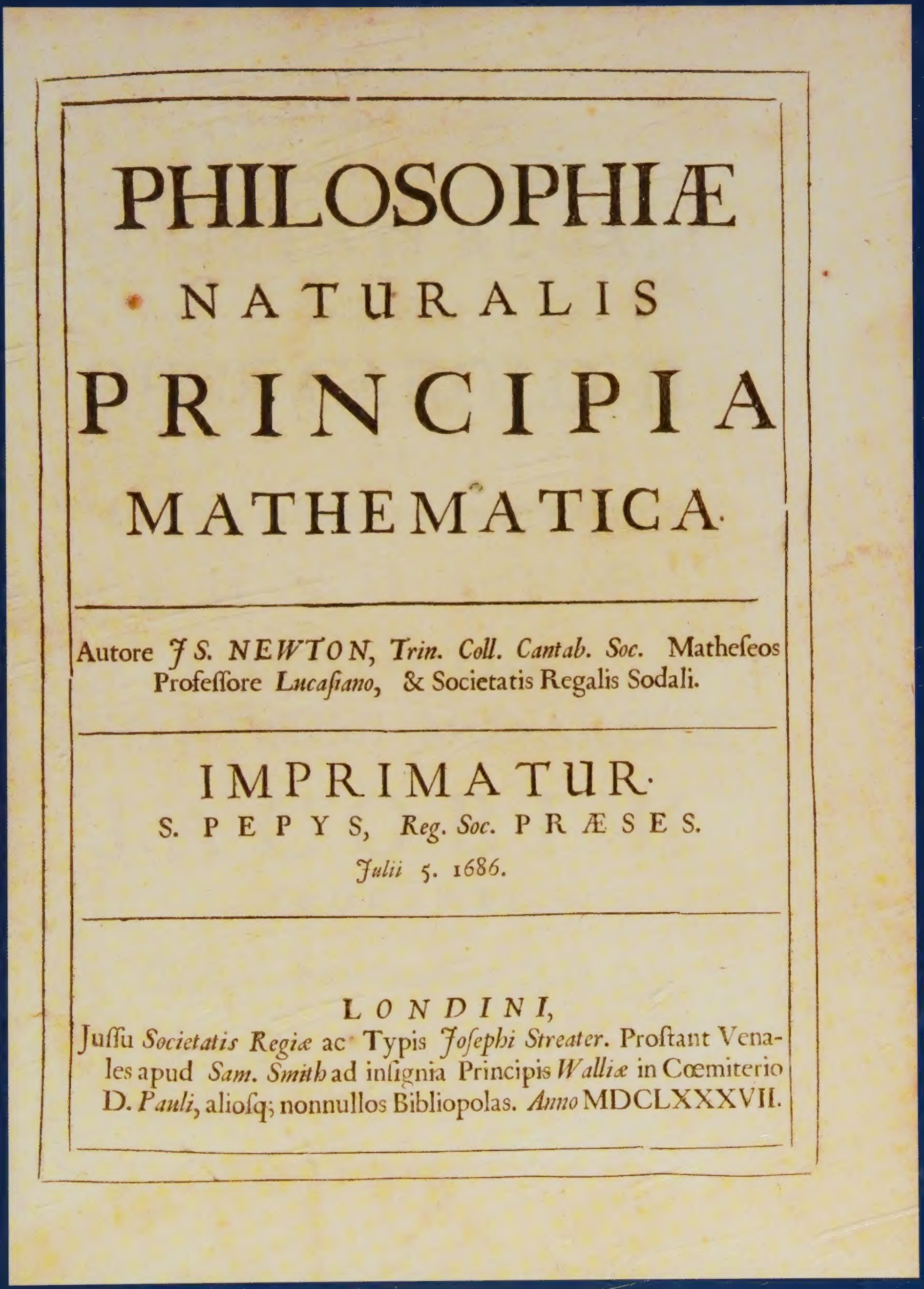
The Haskell F. Norman Library of Science and Medicine

Part II

Monday 15 and Tuesday 16 June 1998



PHILOSOPHIÆ
NATURALIS
PRINCIPIA
MATHEMATICA.

Autore *JS. NEWTON, Trin. Coll. Cantab. Soc.* Matheſeos
Profeſſore *Lucaſiano*, & Societatis Regalis Sodali.

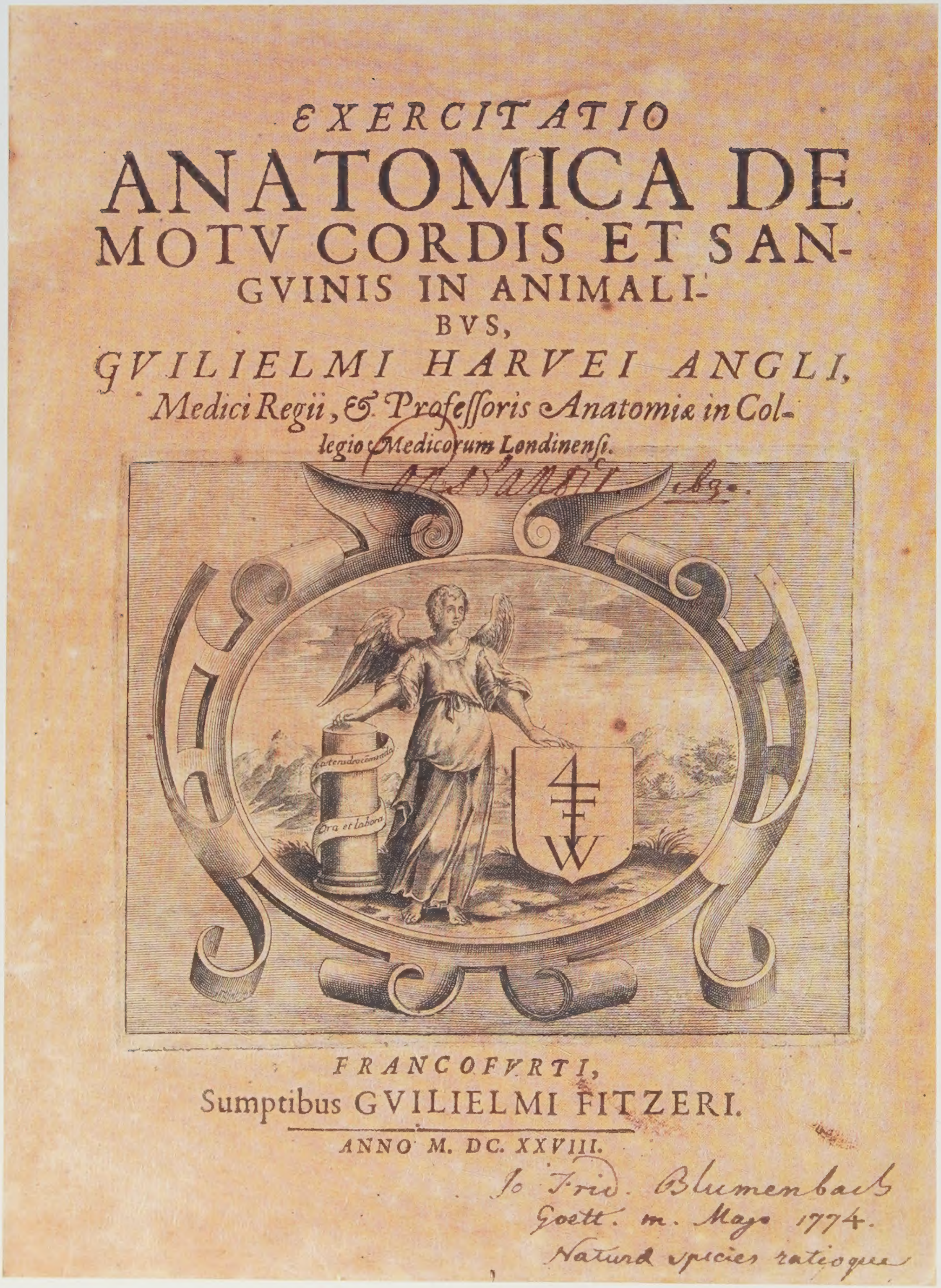
IMPRIMATUR.
S. PEPYS, *Reg. Soc.* PRÆSES.
Julii 5. 1686.

LONDINI,
Juſſu *Societatis Regiæ* ac Typis *Joſephi Streater*. Proſtant Venales apud *Sam. Smith* ad inſignia Principis *Walliæ* in Cœmiterio D. *Pauli*, alioſq; nonnullos Bibliopolas. *Anno* MDCLXXXVII.

CHRISTIE'S
NEW YORK

H F
NORMAN
M D

CHRISTIE'S INC.


EXERCITATIO
ANATOMICA DE
MOTV CORDIS ET SANGVINIS IN ANIMALIBVS,
GVILIELMI HARVEI ANGLI,
Medici Regii, & Profeſſoris Anatomiæ in Collegio Medicorum Londinenſi.

Ora et labora

FRANCOFVRTI,
Sumptibus GVILIELMI FITZERI.
ANNO M. DC. XXVIII.

Jo. Frid. Blumenbach
Goett. m. Majo 1774.
Naturâ species ratioque

502 (actual size)

THE HASKELL F. NORMAN LIBRARY OF SCIENCE AND MEDICINE

Part II: The Age of Reason

Auction

Monday 15 June at 10.00 a.m. (lots 235-448)
2.00 p.m. (lots 449-673)
Tuesday 16 June at 10.00 a.m. (lots 674-883)
502 Park Avenue at 59th Street
New York, New York 10022

Sale Code

When sending written bids or making inquiries, this sale should be referred to as **NEWTON-8922**

Viewing

Wednesday	10 June	10.00a.m.-5.00p.m.
Thursday	11 June	10.00a.m.-5.00p.m.
Friday	12 June	10.00a.m.-2.00p.m.
Saturday	13 June	10.00a.m.-5.00p.m.
Sunday	14 June	1.00p.m.-5.00p.m.

Christie's
502 Park Avenue at 59th Street
New York, New York 10022
Telephone: (212) 546 1000
On-line: www.christies.com

(65) Registered at the above address No. 1128160

CHRISTIE'S

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Christie's Officers **Inside Back Cover**

Cover illustration lot 692

CHRISTIE'S SPECIALISTS AND SERVICES FOR THIS SALE

For assistance and further information about this sale, please contact the following:

Specialists in Printed Books

Felix de Marez Oyens *International Department Head*	Paris (1) 40 76 85 91
Francis Wahlgren *Head of Department*	(212) 546 1197
Nina Musinsky	(212) 546 1196
Chris Coover	(212) 546 1195
Ian Ehling	(212) 606 0520
Anne Tozzi	(212) 546 1196
Hope Mayo, *Consultant*	

Department Administrator

Carroll Magill	(212) 546 1195
Department Fax	(212) 980 2043

General Information

For general client assistance:

Tel: (212) 546 1010

For 24-hour recorded information on current sales and exhibitions:

Tel: (212) 371 5438

Sales Results

An international service for clients with "Touch-tone" telephones.
If you have a star (*) or a pound (#) symbol on your telephone, you can directly access our sales results.

New York Sales Results
Tel: (212) 546 1199

London Sales Results
King Street Sales
Tel: (0171) 389 2047/8

South Kensington Sales
Tel: (0171) 321 3221

("A" lots are not included.)

Absentee and Telephone Bids

For arrangement of bids for those who cannot attend the sale:

Barbara Strongin

Tel: (212) 546 1127

Fax: (212) 832 2216

Payment

For buyer assistance on terms of payment:

Vin Bissoondial

Tel: (212) 546 1040

Jennifer Galkoski

Pam Mackin

Katherine Grossman

Tel: (212) 546 1059

Fax: (212) 317 2439

or method of payment:

Lynne Gardner

Tel: (212) 546 1124

Fax: (212) 759 7204

Shipping

For information on shipping of purchased property:

Chantal Lakatos

Tel: (212) 546 1113

Fax: (212) 980 8195

Consignor Settlements

For information on consignor payments:

Elizabeth Mitchell

Tel: (212) 546 1046

Fax: (212) 754 2390

Internet Access

For information about Christie's services and forthcoming sales:

On-line: www.christies.com

Client Services

For auction assistance:

Tel: (212) 546 1074
Fax: (212) 759 7204

Kate Gubelmann
Jennifer Kaplan
Sharon Kim

Client Advisory Service

Professional advice for the private collector:

Tel: (212) 546 1036
Fax: (212) 750 1537

J. Patrick Cooney *Head of Department*	(212) 546 1122
Heidi Kucker	(212) 546 1031
Rachel Mauro	(212) 546 1126
Kim Solow	(212) 702 2627
Ken C.Y. Yeh *Chinese Client Liaison*	(212) 546 5898
Shoko Suzuki *Japanese Client Liaison*	(212) 546 5892
Julie Kim *Korean Client Liaison*	(212) 546 5840

Catalogue Subscriptions

To subscribe to Christie's catalogues:

Tel: (800) 395 6300
Fax: (800) 395 5600

Outside the U.S. and Canada:
Tel: (718) 784 1480
Fax: (718) 786 0941

Christie's Auction Search Service: LotFinder™

For clients looking for something specific we have an auction search service that can notify you of items of interest to you in Christie's worldwide sales.
If you would like to register with this service, please telephone:

New York (212) 546 5851
London (44 171) 389 2963

AUCTION PRACTICE AT CHRISTIE'S

CHRISTIE'S HISTORY

Christie's, the world's oldest fine art auctioneers, held its first auction in London on December 5, 1766.

In 1977 Christie's opened its first saleroom in America at 502 Park Avenue, followed in 1979 by Christie's East at 219 East 67th Street. In May 1997 Christie's launched a third United States saleroom – Christie's Los Angeles, 360 North Camden Drive, Beverly Hills. Today the firm is a major international company with 119 offices in 41 countries. Christie's holds sales in Britain, the United States, Australia, Hong Kong, Greece, Italy, Monaco, the Netherlands, Singapore and Switzerland. This worldwide network of salerooms enables sellers to take advantage of seasonal selling peaks, national tastes and collecting habits, and fluctuating currency exchange rates.

Over the centuries, Christie's has conducted many of the most important sales ever held. In the late 18th century the firm negotiated the sale of Sir Robert Walpole's collection to Catherine the Great who immediately installed the works in the Hermitage where many of them can be seen today. In 1794 Christie's held a five-day sale of the contents of Sir Joshua Reynolds's studio, and sold Madame du Barry's jewels in 1795, the year she was guillotined. In 1848, in a sale lasting 40 days, the firm sold the collection of the Duke of Buckingham at Stowe House.

In more recent years, Christie's in America has sold major Impressionist, Modern and Contemporary paintings from numerous renowned collections such as those of Henry Ford II, Paul Mellon, Baron Lambert, the Tremaines, Robert B. Mayer, John and Frances L. Loeb and Victor and Sally Ganz; and from distinguished Hollywood collections such as those of William and Edith Mayer Goetz, Hal B. Wallis and Billy Wilder. Other pre-eminent sales held in America include the Codex Hammer which sold for $30,800,000 – the most expensive work other than a painting ever sold, the Nicholas Brown desk and bookcase which sold for $12,100,000 – the record for American furniture, the jewels of Florence Gould and Caroline Ryan Foulke, the Estelle Doheny Library (which included Volume I of the Gutenberg Bible, sold for $5,390,000, a world record price for a printed book), and many important sales of furniture, Asian arts, porcelain, rugs, silver, stamps, wine and automobiles. In 1990, Christie's set world records for both paintings and furniture, when van Gogh's *Portrait of Dr. Gachet* sold for $82,500,000 in New York and the Badminton Cabinet reached $15,200,000 in London.

Christie's welcomes you to our viewing galleries and salerooms. Our specialists and client service staff will be pleased to help you with any aspect of buying or selling at auction.

THE BUYER

USING THIS CATALOGUE

Estimate Prices

Catalogue entries include descriptive information for every lot, as well as a price range which reflects the opinion of our specialists as to the price expected at auction. These are based upon prices recently paid at auction for comparable property and take into account condition, rarity, quality and history of previous ownership (provenance). Estimates are prepared well in advance of the sale and are subject to revision; they do not include the buyer's premium or sales tax.

Where "Estimate on Request" appears, please contact the specialist department for further information.

Reserves

The reserve is the minimum price the consignor is willing to accept and below which a lot will not be sold. This amount is confidential and will not exceed the low pre-sale estimate. Property offered for sale subject to a reserve is identified by the symbol • next to the lot number.

Conditions of Sale and Limited Warranty

If you wish to bid in a sale, we encourage you to read the **Conditions of Sale** and **Limited Warranty** which appear on the immediately following pages. The **Conditions of Sale** outline the terms governing the purchase of all property sold at auction. The **Limited Warranty** specifies the terms and conditions upon which Christie's guarantees the authenticity of property offered for sale.

Christie's Interest in Property Consigned for Sale

Christie's generally offers property consigned by others for sale at public auction. Occasionally, lots are offered which have in the course of the sale process become the property of Christie's. These lots are identified with the symbol ◆ next to the lot number. Christie's also occasionally offers for sale works owned in whole or part by an affiliate company. These lots are identified with the symbol Δ next to the lot number. On rare occasions, Christie's has a direct financial interest in lots consigned for sale. This interest may include guaranteeing a minimum price to the consignor of property or making an advance to the consignor which is secured solely by consigned property. Such lots are identified by the symbol ○ next to the lot number and are also sold subject to a reserve.

Buyer's Premium and Sales Tax

Buyers are reminded that the purchase price will be the sum of the final bid price plus the buyer's premium, which is generally 15% of the final bid price up to and including $50,000 and 10% of the amount above $50,000; for coins, the premium is a flat 10% of the final bid price regardless of the amount of the successful bid.

In addition to the purchase price, buyers are required to pay any sales or use tax which may be due. These charges are explained in detail under "Christie's Charges and Sales Tax" towards the end of this catalogue.

BEFORE THE AUCTION

Pre-sale viewings for all our auctions are open to the public and may be attended at no charge. All property to be auctioned is usually on view for several days prior to the sale. You are encouraged to examine lots thoroughly and to request condition reports (see below). Christie's specialists and customer service staff are available to give advice at all viewings or by appointment.

Hours of Business

Christie's Park Avenue galleries and Christie's East are open from 10 a.m. to 5 p.m. on weekdays. During the auction season there is frequent weekend viewing from 10 a.m. to 5 p.m. on Saturdays and varying afternoon hours on Sundays. The viewing schedule for each sale is published in the front of the auction catalogue.

Condition Reports

If you would like additional information on a particular lot or cannot come to the viewing, Christie's will be pleased to provide upon request a condition report. Please contact the specialist department in charge of the sale.

We remind prospective buyers that descriptions of property are not warranties and that each lot is sold "as is" in accordance with the terms of the **Limited Warranty.** Condition reports are provided as a service to interested clients, but the information furnished does not negate or modify the **Limited Warranty.** Neither Christie's nor the consignor makes any express or implied warranty or representation as to the condition of any lot offered for sale, and no statement made at any time, whether oral or written, shall constitute such a warranty or representation.

Registration

If you are planning to bid at auction, you will need to register with us. Please arrive 20 or 30 minutes before the sale to complete bidder registration and to receive a numbered paddle to identify you if you are the successful bidder. If you are a new client, or if you have not made a recent purchase at Christie's, you may be asked to supply a bank reference when you register. To avoid any delay in the release of your purchases, you may wish to prearrange check or credit approval. If so, please contact Christie's Credit Department at (212) 546 1040 or by fax at (212) 754 2390.

THE AUCTION

All auctions are open to the public, free of charge. You do not have to bid or register for a paddle. Some evening sales require an admission ticket (free, but limited in number) which must be requested in advance.

Bidding

Property is auctioned in consecutive numerical order, as it appears in the catalogue. The lot being offered is usually shown at the front of the saleroom or is illustrated on a slide screen. The auctioneer will accept bids from those present in the saleroom or absentee bidders participating by telephone or by written bid left with Christie's in advance of the auction. The auctioneer may also execute bids on behalf of the consignor to protect the reserve, either by placing consecutive bids up to the amount of the reserve or by entering bids in response to saleroom, telephone or absentee bids. Under no circumstances will the auctioneer place any bid on behalf of the consignor at or above the reserve. Nor will the auctioneer specifically identify bids placed on behalf of the consignor to protect the reserve.

Bidding Increments

Bidding generally opens below the low estimate and advances in the following increments:

$500 to $1,000	by $50
$1,000 to $2,000	by $100
$2,000 to $3,000	by $200
$3,000 to $5,000	by $200 or $200-500-800
$5,000 to $10,000	by $500
$10,000 to $20,000	by $1,000
$20,000 to $30,000	by $2,000
$30,000 to $50,000	by $2,000 or $2000-5000-8000
$50,000 to $100,000	by $5,000
$100,000 to $200,000	by $10,000
$200,000 up	Auctioneer's discretion

Occasionally the auctioneer may vary the increments during the course of the auction at his or her discretion.

Currency Conversion

Christie's may, as a convenience to bidders, use a currency conversion board during the auction to display the amounts being bid converted into several foreign currencies. These converted amounts are approximations only and may not represent the exact exchange rate at any given time.

Absentee Bids

If you cannot attend an auction, you may bid in other ways. The most common is the absentee bid, sometimes called an "order bid." Absentee bids are written instructions from you directing Christie's to bid for you on one or more lots up to a maximum amount you specify for each lot. Christie's staff will execute your absentee bid at the lowest possible price taking into account the reserve price and other bids. There is no charge for this service. If identical bids are left by two or more parties, the first bid received by Christie's will take preference. The auctioneer may execute bids for absentee bidders directly from the podium, clearly identifying these as order bids. Absentee Bid Forms are available in the back of every auction catalogue and also may be obtained at any Christie's location.

Telephone Bids

Christie's will also execute your bids if you cannot come to the auction and wish to participate by telephone. Arrangements should be confirmed at least one day in advance of the sale with Christie's Bid Department at (212) 546 1127.
Christie's staff will execute telephone bids from designated areas in the saleroom. This service is also free of charge.

Successful Bids

The fall of the auctioneer's hammer indicates the final bid. Christie's will record the paddle number of the buyer. If your saleroom or absentee bid is successful, you will be notified immediately after the sale by mailed invoice. If you are unsuccessful, Christie's Bid Department will notify you by letter.

Unsold Lots

If a lot does not reach the reserve, it is bought-in. In other words, it remains unsold and is returned to the consignor. When the auctioneer hammers down a lot that fails to sell, he will so indicate by announcing that the lot has been "passed," "withdrawn," "returned to owner" or "bought-in."

AFTER THE AUCTION

Payment

Under normal circumstances, you are expected to pay for your purchases within seven calendar days of the sale and to remove the property you have bought by that date. Payment can be made by check, cash, money order or bank wire transfer. To avoid any delivery delays, prospective buyers are encouraged to supply bank or other suitable references before the auction.

Extended Payment Terms

With the consent of the consignor, Christie's may offer extended credit terms to prospective buyers whose creditworthiness has been verified. These terms will generally provide for the payment of the final bid price in three equal monthly installments. For further information, please contact the specialist department or Christie's Credit Department at (212) 546 1040 prior to the date of the auction.

Shipping

After payment has been made in full, Christie's may, as a service to buyers, arrange to have property packed, insured and shipped at your request and expense. For your convenience, a shipping form is enclosed with your invoice and is also available through our Art Transport Department at (212) 546 1113. In circumstances in which Christie's arranges and bills for such services via invoice or credit card, we will also include an administration charge.
We recommend that you request an estimate for any large items or property of high value requiring specialized professional packers.

Collection

Due to space constraints, Christie's often moves sold property out of the saleroom immediately after, and on occasion before, the sale. Please consult the "Pickup Information Sheet", available at the saleroom, for collection information on specific lots.
After twenty-eight calendar days from the sale, uncollected purchases will incur administration, handling and insurance charges for each day until the lots are picked up. These charges are explained in detail under **Christie's Charges and Sales Tax** at the back of this catalogue. A lot will not be released until all charges for the lot are settled.

Sale Results

Price lists are sent automatically to catalogue subscribers and absentee bidders shortly after each sale and are available to others on request. The price list will not include lots that were withdrawn or failed to sell. The price paid for any bought-in lot sold within 24 hours of the auction may be included on the list of prices realized but will be marked to indicate that such price was not realized at the auction. In addition, interested clients can obtain sale results for specific lots during and after the auction by calling (212) 546 1199, Christie's sale results line.

THE CONSIGNOR

Auction Estimates

If you are considering selling your property, Christie's is happy to provide a free verbal estimate of its auction value. You can bring items into our New York salerooms at Park Avenue or Christie's East any time during normal business hours. To ensure prompt attention, it is advisable to make an appointment in advance with the specialist department. If a visit is not practical, please send a clear photograph together with dimensions and any other pertinent information that you may have.

Estate Services

Christie's Estates and Appraisals Department works closely with lawyers, bankers and others with responsibility for dispersing estates. Please call (212) 546 1060 for information about Christie's extensive estate services.

Consignment Agreement

If you decide to sell your property at auction, the procedures are simple and you should find Christie's specialists and administrative staff helpful to you throughout the process. After discussions with our specialists, you will receive a contract to sign, setting forth terms and fees for services we can provide, such as insurance, shipping and catalogue illustration. Christie's consignor commission rates are detailed on the page entitled **Christie's Charges and Sales Tax** which appears at the back of this auction catalogue.

Christie's specialists will discuss with you a suggested reserve price and our recommendations for pre-sale estimates for each piece of property you consign for sale.

Delivery of Property to Christie's

After you have consigned property to us for sale, you can either bring your property to Christie's yourself, arrange with your own shipper to deliver it to us or Christie's specialist department can organize for it to be shipped through Christie's Art Transport Department. We are always happy to assist you. For more information please contact us at (212) 546 1113. Property usually arrives at Christie's at least three months before the sale in order to allow our specialists time to research, catalogue and photograph the items. Your property is generally stored without charge at one of Christie's secure warehouses.

Financial Services

On occasion, Christie's advances funds to consignors against property consigned for sale. In certain circumstances, advances may be secured solely by the property consigned for sale. For information, please contact the specialist department to which you have consigned property or Ray Horne, Chief Financial Officer, at (212) 702 1392.

Pre-Auction Notification

Several weeks before the scheduled sale, along with thousands of Christie's worldwide subscribers, you will receive a copy of the sale catalogue in which your property is offered. You will also find enclosed with your catalogue a form indicating your property's lot numbers and confirming the reserves.

Post-Auction Notification

Within a few days after the sale, you will receive a post-sale advice listing the final bid price or, in the event that the property failed to sell, notification that it was bought-in to be returned to you. At any time during or after an auction, you can obtain the selling price for any lot by calling (212) 546 1199.

You will generally be sent payment for your sold property approximately 35 days after the sale, together with a settlement statement itemizing the selling commission and other charges.

CONDITIONS OF SALE FOR BOOKS AND MANUSCRIPTS

The property described in this catalogue, which description may be amended by saleroom notice or announcement, will be offered for sale by Christie's on behalf of various consignors ("sellers"). Unless otherwise indicated in the catalogue, all property will be offered by Christie's as agent for the seller. These **Conditions of Sale** and the **Limited Warranty** set forth on the following page, together with any glossary contained herein, constitute the complete and exclusive statement of the terms and conditions on which all property described in this catalogue is offered for sale, and there are no warranties, express or implied, which extend beyond those contained in such texts. Christie's reserves the right to vary the terms of sale and any such variance shall become part of these **Conditions of Sale**. By bidding at auction, whether present in person or by agent, by written bid, telephone or other means, the buyer agrees to be bound by these **Conditions of Sale**.

1. As used in these **Conditions of Sale**, the term "final bid price" means the amount of the highest bid acknowledged by the auctioneer and the term "purchase price" means the sum of the final bid price plus the premium payable by the buyer, as set forth in Condition 4.

2. The highest bidder acknowledged by the auctioneer shall be the buyer. The auctioneer has the right to reject any bid, to advance the bidding at his absolute discretion and, in the event of any dispute between bidders or any other issue with respect to the highest bidder, to determine the successful bidder, to continue the bidding or to reoffer and resell the lot in question. In the event of any dispute after the sale, Christie's record of final sale shall be conclusive.

3. Christie's reserves the right to withdraw any lot before or at the sale.

4. The purchase price payable by a buyer shall be the sum of the final bid price plus a premium of 15% of the final bid price up to and including $50,000 and 10% of the final bid price above $50,000.

5. All lots marked with • next to the lot number are offered subject to a reserve, which is the confidential minimum price below which the lot will not be sold (the "reserve"). Christie's shall act to protect the reserve by bidding through the auctioneer. The auctioneer may open bidding on any lot below the reserve by placing a bid on behalf of the seller. The auctioneer may continue to bid on behalf of the seller up to the amount of the reserve, either by placing consecutive bids or by placing bids in response to other bidders.

6. Title to the offered lot shall pass to the buyer upon the fall of the auctioneer's hammer and announcement by the auctioneer that the lot has been sold, subject to compliance by the buyer with all other **Conditions of Sale**. The buyer shall forthwith assume full risk and responsibility for the lot and shall pay the full purchase price or such part thereof as Christie's, in our sole discretion, shall require. In addition, the buyer may be required to sign a confirmation of purchase.

7. No lot may be removed from Christie's premises until the buyer has paid in full the purchase price therefor or has satisfied such terms as Christie's, in our sole discretion, shall require. Subject to the foregoing, all lots are to be paid for and removed from Christie's premises at the buyer's expense no later than 4:30 p.m. of the seventh calendar day following the sale, and, if not so removed, Christie's may transfer any such lot to a public warehouse for the account, and at the risk and expense of the buyer. If a lot has not been collected by 4:30 p.m. of the seventh calendar day following the sale and Christie's does not transfer the uncollected property to a public warehouse, the buyer will be liable to Christie's for storage and handling charges of $10.00 per day for each lot. In addition to other remedies available by law, Christie's reserves the right to impose a late charge of 16% per annum on the purchase price commencing on the day following the date on which payment is due if the buyer does not make payment in full in accordance with these **Conditions of Sale**.

8. Bids which are submitted to Christie's in writing or are otherwise left with Christie's prior to an auction for execution at or below a specified price ("absentee bids"), as well as telephone bids, shall be entertained and executed by Christie's for the convenience of bidders not present at auction, but Christie's shall not be responsible for failing to execute such bids or for errors relating to our execution of such bids.

9. Unless exempted by law, the buyer shall be required to pay any applicable state and local sales tax or compensating use tax on the purchase price.

10. If the buyer fails to comply with any of these **Conditions of Sale**, Christie's may, in addition to asserting all remedies available by law, including the right to hold such defaulting buyer liable for the purchase price, (i) cancel the sale, retaining as liquidated damages any payment made by the buyer, (ii) resell the property without reserve at public auction or privately on seven days' notice to the buyer or (iii) take such other action as we deem necessary or appropriate. If Christie's resells the property, the original defaulting buyer shall be liable for the payment of any deficiency in the purchase price and all costs and expenses, including warehousing, the expenses of both sales, reasonable attorneys' fees, commissions, incidental damages and all other charges due hereunder. In the event that such buyer pays a portion of the purchase price for any or all lots purchased, Christie's shall apply the payment received to such lot or lots that Christie's, in our sole discretion, deems appropriate. Any buyer who fails to comply with these **Conditions of Sale** will be deemed to have granted Christie's a security interest in, and Christie's may retain as collateral security for such buyer's obligation to Christie's, any

in Christie's possession owned by such buyer. Christie's shall have the benefit of all rights of a secured party under the Uniform Commercial Code adopted in the state where the auction is held.

11. The respective rights and obligations of the parties with respect to the **Conditions of Sale** and the conduct of the auction shall be governed and interpreted by the laws of the state in which the auction is held. By bidding at an auction, whether present in person or by agent, by absentee bid, telephone or other means, the buyer shall be deemed to have consented to the exclusive jurisdiction of the courts of such state and the Federal courts sitting in such state. The buyer expressly agrees that (i) neither Christie's nor the seller shall be liable, in whole or in part, for any special, indirect or consequential damages, including, without limitation, loss of profits and (ii) the buyer's damages are limited exclusively to the original purchase price paid for the lot.

12. Christie's may, in our discretion and as a service to buyers, arrange to have purchased lots packed, insured and forwarded at the request, expense and risk of the buyer. Christie's assumes no responsibility for acts or omissions in such packing or shipping by Christie's or other packers or carriers, whether or not recommended by Christie's. Nor does Christie's assume any responsibility for any damage to picture frames or to the glass therein. In circumstances in which Christie's arranges and bills for such services via invoice or credit card, Christie's will include an administration charge.

Limited Warranty

Christie's warrants the authenticity of authorship on the terms and conditions and to the extent set forth herein. **Subject to the provisions of the last paragraph hereof,** Christie's warrants for a period of six years from the date of sale, the authenticity of the authorship of each book and manuscript and the signature of all autographed material offered for sale, unless otherwise indicated in the catalogue description or unless physical inspection would reveal a self-evident lack of authenticity. The term "authorship" refers to the creator of a signature, book or manuscript or to the period, culture, source or origin, as the case may be, with which the creation of a book or manuscript is identified in the description of the article in this catalogue. Christie's warranty does not apply to the descriptive or supplemental information set forth in the catalogue entry for each lot, and Christie's shall not be responsible for any errors or omissions therein.

Christie's warrants to the original buyer of record for a period of twenty-one days from the date of sale that any book or manuscript described in this catalogue is complete in text and illustrations, unless otherwise described. This warranty does not cover binding damages or restoration, stains or foxing, wormholes, short leaves of text or plates or any defect which does not affect the completeness of the text. Nor does this warranty extend to the omission of inserted advertisements, blank leaves, cancels or subsequently published volumes, plate supplements or appendices, atlases, extra-illustrated books, books in original parts, serial publications, items grouped in lots or lots which are described as "sold not subject to return" for any reason whatsoever.

The benefits of this warranty are not assignable and shall be applicable only to the original buyer of the lot and not subsequent assigns, purchasers, heirs, owners or others who have or may acquire an interest in the purchased lot. This warranty is conditioned upon the buyer returning the lot in the same condition as at the time of sale.

The buyer's sole remedy under this warranty shall be the rescission of the sale and the refund of the original purchase price paid for the property. This remedy shall be exclusive and in lieu of any other remedy which might otherwise be available to the buyer as a matter of law, and neither Christie's nor the seller shall be liable for any consequential damages.

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Illustrations

The illustrations in this catalogue are reduced reproductions unless otherwise stated.

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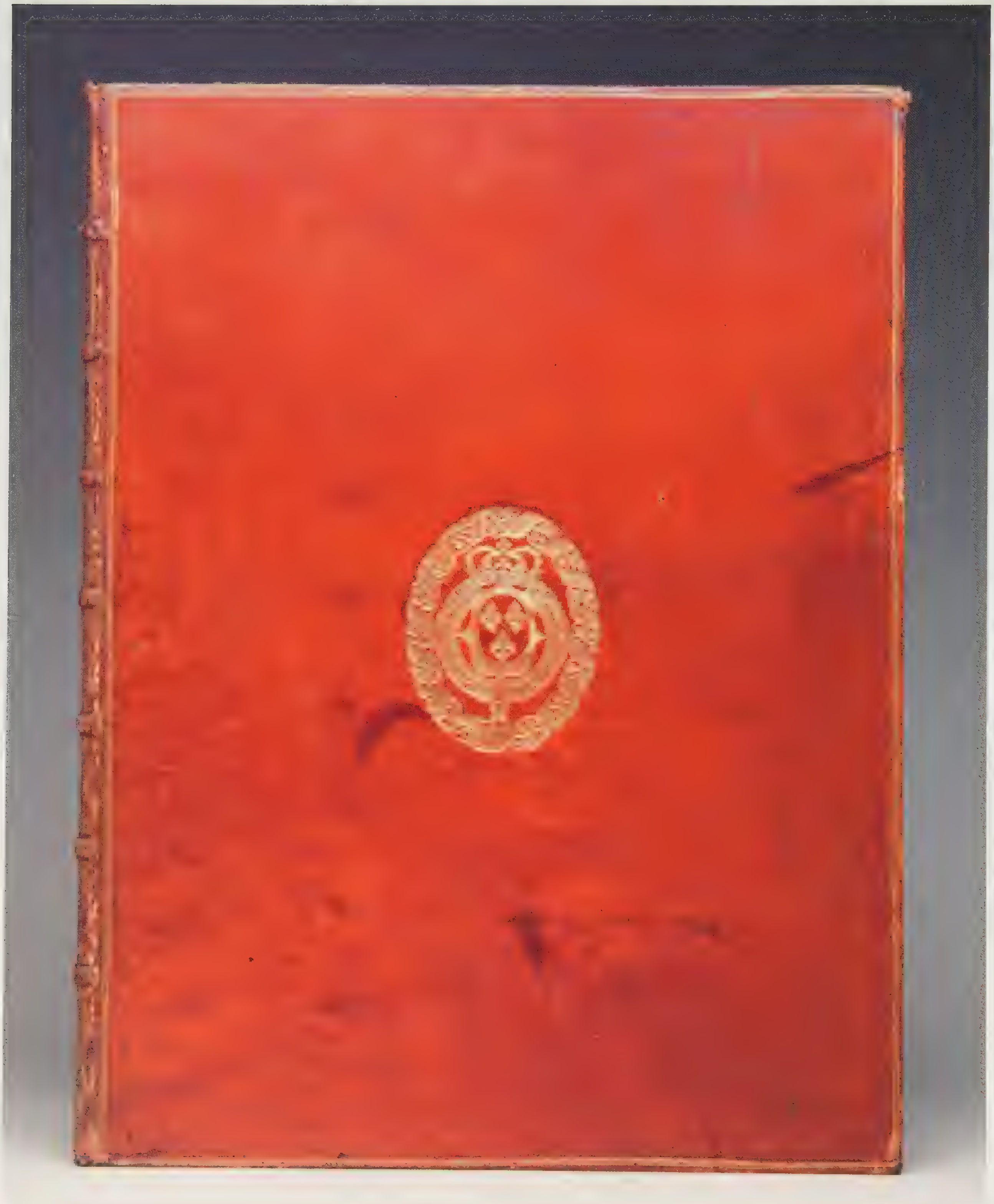


THE HASKELL F. NORMAN LIBRARY
OF
SCIENCE AND MEDICINE

PART II

MONDAY, 15 JUNE 1998 AT 10.00 A.M.

(LOTS 235-448)

○235

ACADÉMIE ROYALE DES SCIENCES. *Recueil de plusieurs traitez de mathematique de l'Aacademie Royale des Sciences.* Paris: Sebastien Mabre-Cramoisy for the Imprimerie Royale, 1676.

5 parts in one volume, large 2° (537 x 405 mm). Engraved frontispiece by Goyton after Sebastien le Clerc, engraved title-vignettes incorporating the royal arms of Louis XIV, numerous engraved head- and tail-pieces by le Clerc, 8 engraved plates in first part (Blondel's *Resolution*), engraved and woodcut illustrations in the other parts. Contemporary French red morocco, presentation binding with gilt arms of Louis XIV (Olivier 2494 fer 10) on sides, triple gilt fillet outer border, spine in eight compartments with seven raised bands, gilt-lettered in one compartment, a repeated gilt panel in the rest containing the royal monogram, board edges and turn-ins gilt, edges gilt (spine rubbed, some wear to extremities, some stains and minor abrasions on sides). *Provenance*: Louis XVI (bound for presentation by the king as patron of the French Royal Academy of Sciences).

This collection of mathematical works contains: the first edition of Nicolas-François Blondel (1618-1686), *Resolution des quatre principaux problèmes d'architecture*, with separate title dated 1673; the second edition of Edmé Mariotte (d. 1684), *Traité de la percussion* (colophon dated 1676); *Lettres écrites par MM. Mariotte, Pecquet et Perrault sur le sujet d'une nouvelle découverte touchant la veuë* (colophon dated 1676); a second edition of Mariotte's *Traité du nivellement* (colophon dated 1676); and a second edition of Bernard Frenicle de Bessy (ca. 1605-1675), *Traité des triangles rectangles en nombres* (colophon dated 1677), which includes the second part published here for the first time. The engraved frontispiece, the first illustration of the meeting of a learned society, shows a meeting of the Academy in the Royal Library at Versailles, with Louis XIV and his minister Colbert present (see also lot 713). Norman 1809.

Estimate: $4,000-6,000

ɔ236

ACCADEMIA DEL CIMENTO. *Saggi di naturali esperienzi fatte nell' Accademia del Cimento.* Edited by Lorenzo Magalloti. Florence: Giuseppe Cocchini, 1666 [dedication dated 1667].

2° (365 x 255 mm). Half-title, title printed in red and black with engraved device of the Academy, errata leaf before index, licence with register at end, final leaf blank, engraved portrait of Grand-Duke Ferdinand II of Tuscany by Lotaringus after F. Spierre, 75 full-page engravings of experimental apparatus printed from 30 copperplates, engraved by Il Modiana possibly after drawings by Stefano della Bella, engraved head- and tail-piece vignettes by V. Spada, large historiated woodcut initials. (Portrait supplied from another copy and inlaid, half-title and title soiled and with edges frayed, occasional spotting, dedication leaves browned, some minor marginal dampstaining.) 18th-century plain boards, EDGES UNTRIMMED (backstrip soiled and with a few tears); modern morocco-backed folding case.

FIRST EDITION, FIRST ISSUE, with the title dated 1666, of the only publication by the first academy founded for the purpose of conducting scientific experiments. The Accademia del Cimento was founded in 1657 under the patronage of Prince Leopold de'Medici and his older brother Grand Duke Ferdinand II of Tuscany, themselves both amateur scientists. The members of the Academy sought to extend the work of Galileo by performing experiments that would silence any remaining opposition to the *scienza nuova*. Prince Leopold, who "set the experimental agenda" (Biagioli, *Galileo Courtier*, Chicago 1993, p. 358) provided the group with the first well-equipped physical sciences laboratory in Europe, and devised some of the methods and instruments used in it. Although active for only a decade, the Academy exerted a lasting influence on the development of experimental scientific methods and devices during the following century. Led by the polymath Giovanni Alfonso Borelli (1608-1679) and Vincenzio Viviani (1622-1703), pupil of Galileo and Torricelli, its members included the naturalist Francesco Redi, the anatomist and geologist Niels Stensen, the astronomer Gian Domenico Cassini, and the linguist and writer Lorenzo Magalloti, who became the secretary and who edited the *Saggi*. The collection was published anonymously, an expression of the Academy's (or Leopold's) policy of submerging the members' individual identities and presenting itself as a group. "The frequent strong tensions and explicit disagreements recorded in the academicians' private correspondence were made invisible by the *Saggi*" (Biagioli, p. 360). The essays focus strictly on the identification and description of physical phenomena, and avoid stating any potentially controversial theories or conclusions. Although the *Saggi* describe only a portion of the experiments carried out by the Academy, omitting some interesting investigations, including observations of comets, they include several scientific novelties: "... the description of the first true thermometer... the first true hygrometer, and an improved barometer, giving also classical experiments on air pressure, experiments on the velocity of sound, radiant heat, phosphorescence, and the first experiments showing the expansion of water in freezing..." (Zeitlinger, *Bibliotheca chemico-mathematica*, London 1921, 22505). A particularly important discovery recorded in the *Saggi* is that of the deviation of a pendulum from its true plane of oscillation, which was later used by Foucault as proof of the rotation of the earth.

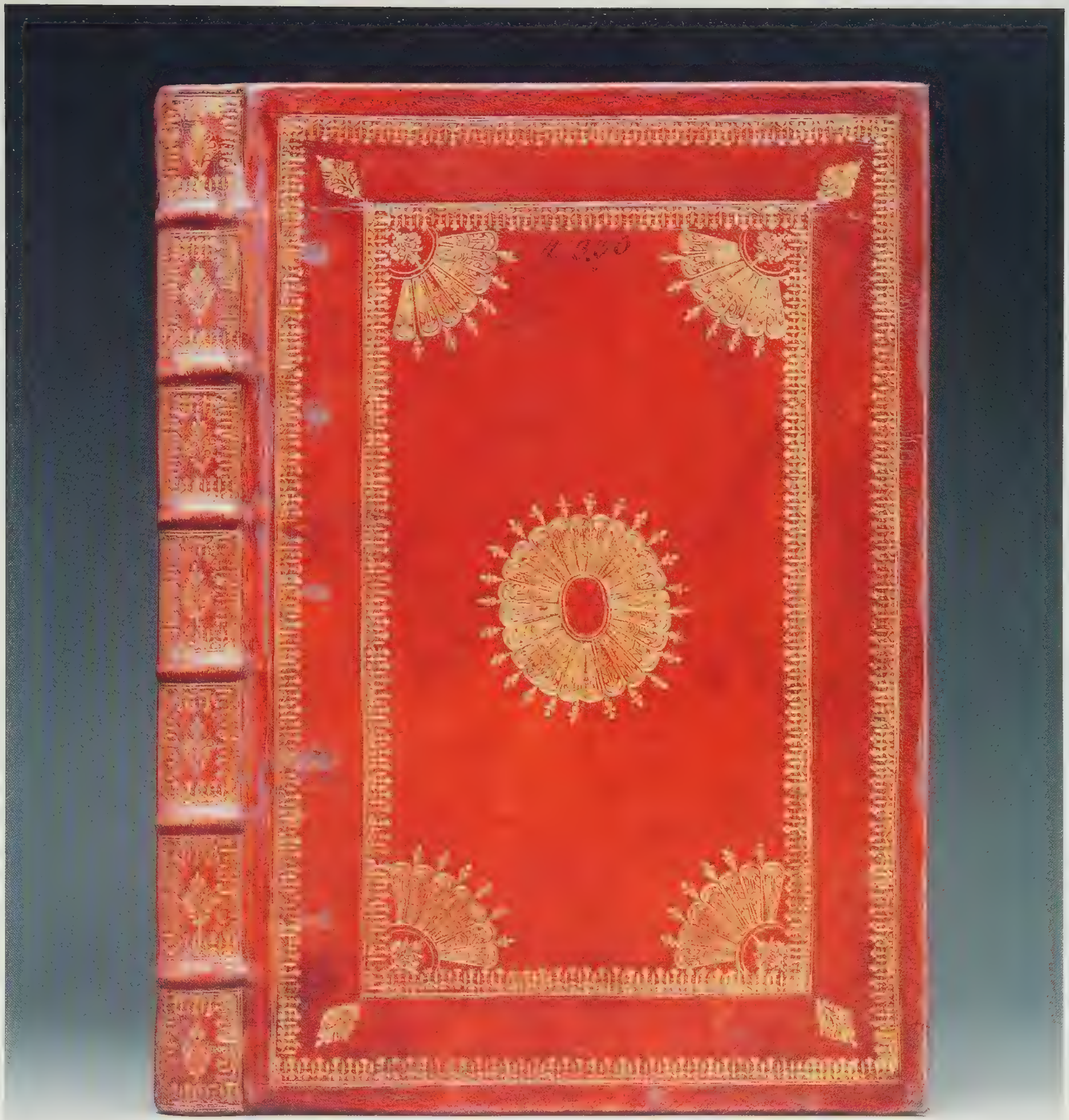
This is one of 725 copies printed on ordinary paper from a total edition of 800 (including both first and second issues, see lot 237), as recorded in surviving correspondence concerning publication of the collection. Dibner, *Heralds of Science* 82; Middleton, *The Experimenters, a Study of the Accademia Cimento* 1; Riccardi I(2), 407; Norman 485.

Estimate: $3,500-4,500

ɔ237

ACCADEMIA DEL CIMENTO. *Saggi di naturali esperienzi fatte nell' Accademia del Cimento.* Edited by Lorenzo Magalloti. Florence: Giuseppe Cocchini, 1667.

2° (414 x 272 mm). Half-title, title printed in red and black with engraved device of the Academy, errata leaf before index, licence with register at end, last leaf blank, engraved portrait of Grand Duke Ferdinand II of Tuscany by Lotaringus after François Spierre, 75 full-page engravings of experimental apparatus printed from 30 copperplates, engraved by Modiana possibly after drawings by Stefano della Bella, engraved head- and tail-piece vignettes by V. Spada, large historiated woodcut initials. The arrangement of the head- and tailpieces differs in this copy from that in the ordinary paper copy (see lot 236). (Outer margins of first and last 2 leaves discolored from acidic glue used for pastedowns, dedication leaves browned, Ll1.4 foxed, 2 or 3 very minor short marginal tears.) Contemporary Italian red morocco, covers tooled in gold to a center- and corner-piece fan design, spine richly tooled in seven compartments, gilt



edges (slight wear to extremities). *Provenance*: 18th-century manuscript shelfmark A.330 on upper cover; 18th- or 19th century shelfmarks (F.IV.1 and 190) on front endpapers.

MAGNIFICENT LARGE-PAPER COPY OF THE FIRST EDITION, second issue, with the title reset and dated 1667, of the only publication by the first scientific academy. Surviving correspondence of Magalotti indicates a press-run of 800 copies, of which 25 on *carta detta de' frati* (friar's paper), 50 on royal paper and 725 on ordinary paper. A large paper copy of the first issue in a nearly identical binding was sold at Sotheby's, London, on 27 September 1988 (lot 152); presumably these two copies were among several whose bindings were commissioned by one of the Accademia's patrons for presentation. Dibner, *Heralds of Science* 82; Middleton 1; NLM/Krivatsy 25; Riccardi I(2), 407; Norman 486.

Estimate: $7,000-10,000

○238

ACTS - STEAM ENGINES.[GEORGE III]. *An Act for vesting in James Watt, Engineer, his Executors, Administrators, and Assigns, the sole use and Property of certain Steam Engines, commonly called Fire Engines, of his invention, described in the said Act, throughout His Majesty's Dominians, for a limited Time* [drop title]. London: Charles Eyre and William Strahan, 1775.

2° (303 x 190 mm). Paginated: [1585]-1594. Disbound. James Watt (1736-1819) first obtained a patent for his steam or "fire" engine in 1769. By 1775, the improvements he had made to the design necessitated this second patent, which gave Watt and his partner, Matthew Boulton, a monopoly on the manufacture of the machine until 1800. Norman 2189.

Estimate: $500-700

○239

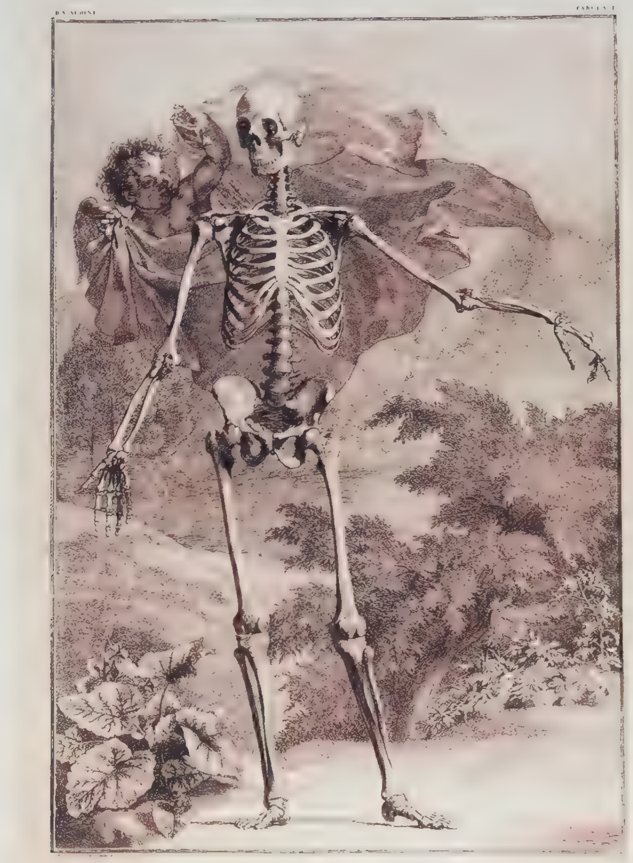
AGUILON, François d' (1546-1617). *Opticorum libri sex.* Antwerp: Plantin Press: widow and sons of J. Moretus, 1613.

2° (344 x 212 mm). Half-title, engraved allegorical title, and six engraved vignettes at the head of each book, by Theodor Galle after Peter Paul Rubens, engraved text diagram on A2r and over 500 woodcut diagrams, many with typographic ornaments, printer's woodcut device, woodcut initials and tailpiece ornaments. (Light browning as usual, small piece from lower portion of title cartouche excised and patched, rust-hole to T6 catching 2 letters.) 18th-century mottled sheep, alternating gilt anchor and fleur-de-lys tools in compartments of spine, citron morocco spine label, edges red-stained (upper joint cracked, lower joint and extremities rubbed). *Provenance*: 18th-century shelfmark "A 29^{2}" on half-title and title-page.

FIRST EDITION of an important treatise on optics. Written for the students of Jesuit colleges and for practical application by astronomers, navigators, architects and painters, Aguilon intended the work as the first of a three-part comprehensive survey of the science of optics, but he died before completing the remaining two parts, on catoptrics, dioptrics and telescopes. Although mainly a skillful compilation of earlier works on optics, Aguilon's treatise contains several original contributions, including "the first discussion of the stereographic process (which Aguilon named), one of the earliest presentations of the red-yellow-blue color system, an original theory of binocular vision [later disproved], and the first published description of Aguilon's horopter" (Norman). This edition is one of only seven books known to have been illustrated by Rubens. The title-page is replete with references to the "alliance of vision and reason... The title-page alone would suggest no more than an illustrator's job well and professionally done. However, the vignettes which Rubens provided for the individual title pages of each of the six books show such a complex and knowing relationship to the text as to leave no doubt that Rubens's intellectual involvement was considerable..." (Martin Kemp, *The Science of Art*, 1990, pp. 101-104). Aguilon's color theory and his prescriptions for the mixing of colors were used by Rubens in his paintings.

Becker 6; De Backer-Sommervogel I:90 no. 1; Hofer *Baroque Book Illustration* 116; NLM/Krivatsy 92; Norman 25.

Estimate: $3,000-4,000



241

ↄ240

ALBINUS, Bernhard Siegfried (1697-1770). *Historia musculorum hominis.* Leiden: Theodor Haak and Hendrik Mulhovius, 1734. 4° (243 x 198 mm). 8 folding engraved plates by Jan Wandelaar, including 4 outline plates. Contemporary boards. *Provenance*: The Janus Foundation (bookplate and withdrawal stamp on front paste-down); Schoenhof & Moeller, Boston (bookseller's label on front paste-down). FIRST EDITION. The plates in this work illustrate the muscles of the hand. Choulant 280; *Heirs of Hippocrates* 829; Wellcome II, p. 26; Norman 28. — [*Bound with*]: Hieronymus David GAUBIUS. *Sermo academicus de regimine mentis quod medicorum est habitus octavo februarii 1747 cum magistratu academico abiret.* Leiden: Balduinum vander Aa, 1747. FIRST EDITION. Waller 3432; Wellcome III, p. 95.

Estimate: $700-1,000

ↄ241

ALBINUS, Bernhard Siegfried. *Tabulae sceleti et musculorum corporis humani.* Leiden: Johan and Herman Verbeek, 1747.

Broadsheets (681 x 505 mm). Engraved title vignette, engraved dedication and 40 engraved plates by Jan Wandelaar including 12 outline plates (engraved title torn and laid down, plate III torn and repaired.) Modern quarter calf.

FIRST EDITION. "AMONG THE MOST ARTISTICALLY PERFECT OF ANATOMICAL ATLASES ... Wandelaar placed his skeletons and musclemen against lush ornamental backgrounds to give them the illusion of vitality, using contrasts of mass and light to produce a three-dimensional effect. The most famous plate in the atlas depicts a skeletal figure standing in front of an enormous grazing rhinoceros, sketched by Wandelaar from the first living specimen in Europe, which had arrived at Amsterdam zoo in 1741" (Norman). Choulant pp. 276-283; Garrison-Morton 399; *Heirs of Hippocrates* 831; Wellcome II, p. 26; Norman 29.

Estimate: $5,000-7,000

)242

ALEMBERT, Jean le Rond d' (1717-1783). *Traité de dynamique, dans lequel les lois de l'equilibre & du mouvement des corps sont réduites au plus petit nombre possible.* Paris: David l'aîné, 1743.

4° (219 x 164 mm). Engraved title-vignette, 4 engraved folding plates at end. (A few minor marginal stains on title-page and preliminaries.) Contemporary French mottled calf, spine gilt (upper joint cracked, some wear to corners). *Provenance*: Gautier (engraved signature stamp on title-page); faint library stamp on title-page (unidentified).

FIRST EDITION OF D'ALEMBERT'S IMPORTANT CONTRIBUTION TO THE FORMALIZING OF NEWTON'S NEW SCIENCE OF MECHANICS. The *Traité de dynamique*, one of d'Alembert's most famous scientific works, demonstrates d'Alembert clearly recognized that a scientific revolution had occured and sets out to formalize the new science of mechanics—an accomplishment often mis-attributed to Newton. The first part of the treatise comprises d'Alembert's own three laws of motion: inertia, the parallelogram of motion, and equilibrium. The second part contains the first statement of what has come to be known as "d'Alembert's Principle," which states that the internal forces of inertia must be equal and opposite to the forces that produce the acceleration—a theory which is applied to many mechanical and technical problems, in particular to the theory of the motion of fluids. "The 'Treatise on Dynamics' was d'Alembert's first major book and it is a landmark i the history of mechanics. It reduces the laws of the motion of bodies to a law of equilibrium" (PMM). PMM 195; Poggendorff I, 28; Wellcome II, p. 28; Norman 31.

Estimate: $3,000-4,000

)243

ALEMBERT, Jean le Rond d' (1717-1783). *Traité de l'équilibre et du mouvement des fluides. Pour servir de suite au Traité de Dynamique.* Paris: David, l'aîné, 1744.

4° (217 x 168 mm). Printer's engraved vignette on title-page. (Lacking the 10 engraved plates, a little worming to some inner margins at beginning, some pale spotting and light browning.) 17th-century sheep-backed decorated boards, spine gilt (some minor worming to spine). *Provenance*: library(?) number stamped on title.

FIRST EDITION of this companion volume to d'Alembert's *Traité de dynamique*, in which he employs his principle to deal with the problems of fluid mechanics. Sotheran I, 74; Norman 33.

[*With*:]

ALEMBERT, Jean le Rond d' (1717-1783). *Reflexions sur la cause generale des vents. -Meditationes de generali ventorum causa.* Paris: David l'aîné, 1747.

4° (216 x 157 mm). Printer's engraved vignette on title-page. Text in French and Latin. (Some minor light browning.) 17th-century vellum (front free endpaper loose). *Provenance*: Castiglione (early signature on title-page); library(?) number stamped on front free endpaper.

FIRST EDITION of an important work on atmospheric tides which contains the first general use of partial differential equations in mathematical physics. Sotheran I, 71; Norman 34. (2)

Estimate: $600-900

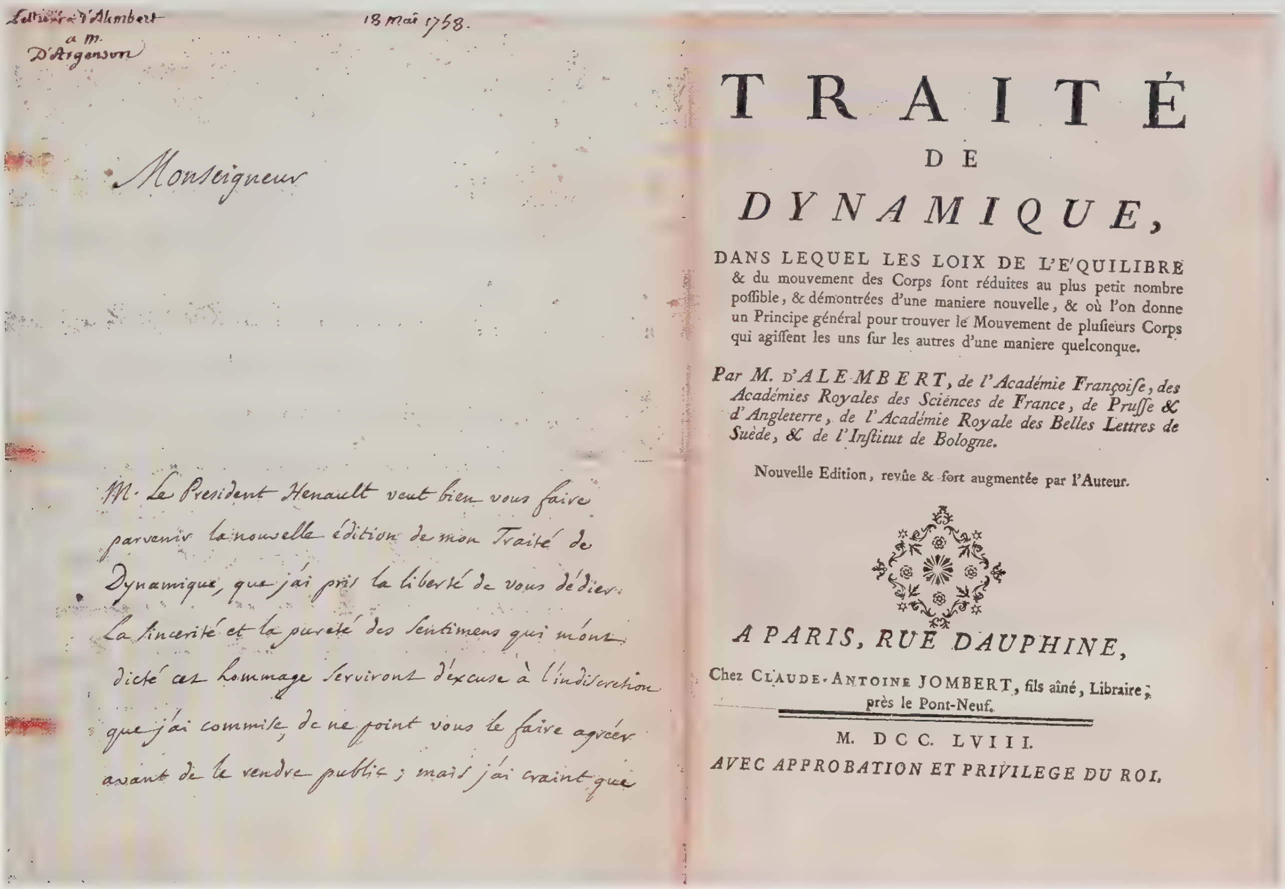
)244

ALEMBERT, Jean le Rond d' (1717-1783). *Essai d'une nouvelle theorie de la résistance des fluides.* Paris: David l'aîné, 1752.

4° (216 x 161 mm). 2 engraved folding plates. Contemporary French mottled calf, spine gilt (some surface wear on upper cover, some wear to extremities). *Provenance*: Charles Parea (contemporary signature on front flyleaf and his? notations on rear endpaper).

FIRST EDITION of the first expression of the differential hydrodynamic equations in terms of a field and of the hydrodynamic paradox. D'Alembert's essay was an important work in fluid mechanics, ranking him among Clairaut, Bernoulli, and Euler in the development of this field. Sotheran I, 68; Wellcome II, p. 28; Norman 35.

Estimate: $800-1,200



Lettre [illegible] d'Alembert
a M.
D'Argenson

18 mai 1758.

Monseigneur

M. Le President Henault veut bien vous faire parvenir la nouvelle édition de mon Traité de Dynamique, que j'ai pris la liberté de vous dédier. La ſincerité et la pureté des ſentimens qui m'ont dicté ces hommage ſerviront d'excuse à l'indiſcretion que j'ai commise, de ne point vous le faire agréer avant de le rendre public ; mais j'ai craint que

TRAITÉ
DE
DYNAMIQUE,
DANS LEQUEL LES LOIX DE L'E'QUILIBRE
& du mouvement des Corps ſont réduites au plus petit nombre poſſible, & démontrées d'une maniere nouvelle, & où l'on donne un Principe général pour trouver le Mouvement de pluſieurs Corps qui agiſſent les uns ſur les autres d'une maniere quelconque.

Par M. D'ALEMBERT, *de l'Académie Françoiſe, des Académies Royales des Sciences de France, de Pruſſe & d'Angleterre, de l'Académie Royale des Belles Lettres de Suède, & de l'Inſtitut de Bologne.*

Nouvelle Edition, revûe & fort augmentée par l'Auteur.

A PARIS, RUE DAUPHINE,
Chez CLAUDE-ANTOINE JOMBERT, fils aîné, Libraire, près le Pont-Neuf.

M. DCC. LVIII.
AVEC APPROBATION ET PRIVILEGE DU ROI.

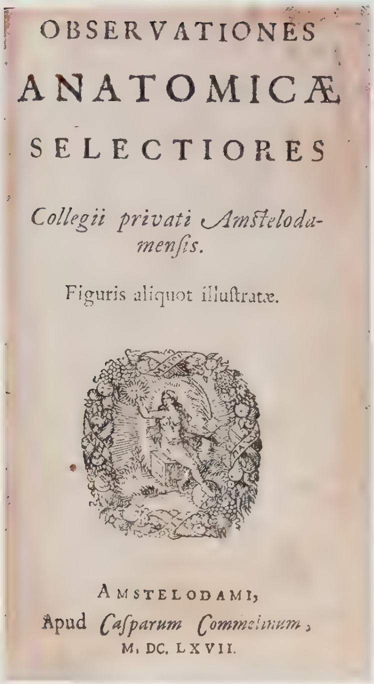
○245

ALEMBERT, Jean le Rond d' (1717-1783). *Traité de dynamique ... Nouvelle édition, revûe & fort augmentée par l'auteur.* Paris: Claude-Antoine Jombert, fils âiné, 1758.

4° (214 x 162 mm). 5 engraved folding plates. (Some very minor browning to text and one plate.) Contemporary French mottled calf, spine gilt (joints starting, minor wear). *Provenance*: Comte d'Argenson (autograph letter signed from the author laid-in).

THE DEDICATION COPY of the second edition, WITH AN AUTOGRAPH LETTER FROM D'ALEMBERT TO THE DEDICATEE. This copy with pasted-on slip bearing Jombert imprint (as above) over original "chez David" imprint. The second edition was extensively revised and enlarged by d'Alembert and re-dedicated to the Minister of the State, Le Comte d'Argenson. In his letter (Paris, 18 May 1758, *3 pages, small 4°*), d'Alembert explains his reasons for this and apologizes for doing so without gaining his permission: "Monseigneur / M. Le President Henault veut bien vous faire parvenir la nouvelle édition de mon Traité de Dynamique, que j'ai pris la liberté de vous dédier. La sincerité et la pureté des sentimens qui m'ont dicté ces hommage servirons d'excuse à l'indiscretion que j'ai commise, de ne point vous le faire agreér avant de le rendre public; mais j'ai craint que votre modestie n'imposât silence à mon zele, & je voulois laisser agir en liberté la reconnoissance et l'attachemens que je vous conserverai toute ma vie..." Sotheran I, 73 ("best edition"); Norman 32.

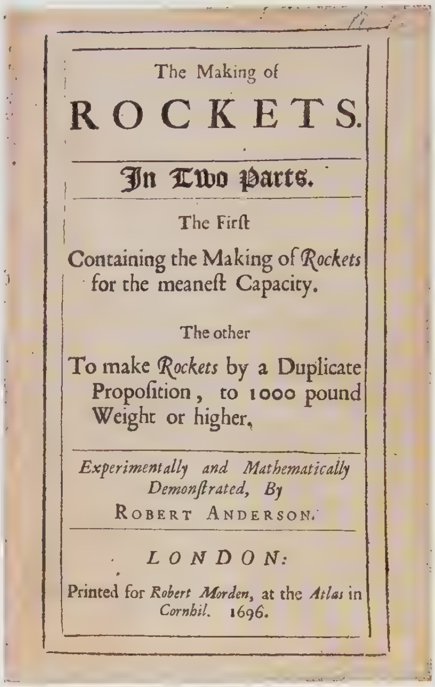
Estimate: $4,000-6,000



OBSERVATIONES
ANATOMICÆ
SELECTIORES
Collegii privati Amſteloda-
menſis.
Figuris aliquot illuſtratæ.

AMSTELODAMI,
Apud Caſparum Commelinum,
M. DC. LXVII.

246



The Making of
ROCKETS.
In Two Parts.
The Firſt
Containing the Making of *Rockets*
for the meaneſt Capacity.
The other
To make *Rockets* by a Duplicate
Propoſition, to 1000 pound
Weight or higher,
Experimentally and Mathematically
Demonſtrated, By
ROBERT ANDERSON.
LONDON:
Printed for *Robert Morden*, at the *Atlas* in
Cornhil. 1696.

247

ɔ246

AMSTERDAM, PRIVATE COLLEGE OF. *Observationes anatomicae selectiores - Observationum anatomicarum Collegii privati Amstelodamensis, pars altera.* Amsterdam: Caspar Commelin, 1667-73.

Two parts in one volume, 12° (124 x 70 mm). Printer's woodcut device on title-pages, folding engraved plate at end of first part, 11 engravings in second part (one double-page, the rest full-page). (Some margins cropped affecting some running headlines, catchwords and signature marks.) Modern calf antique.

VERY RARE FIRST EDITION of the "only publication of one of the earliest scientific societies" (Garrison-Morton). Active from 1664-72, the Private College of Amsterdam was founded by Gerard Blaes and devoted itself to comparative anatomical and physiological investigations of the lower vertebrates, concentrating primarily on fishes and mammals. It was one of the earliest of the many European scientific societies established during the 17th century. This rare publication contains "the first publication of Swammerdam's early experiments with neuro-muscular physiology. Other portions of the works were probably written by Blaes (Garrison-Morton). Cole, *Comparative Anatomy*, pp. 330-341; Garrison-Morton 292.1; Nissen *ZBI* p. 47; Norman 51.

Estimate: $2,500-3,500

ɔ247

ANDERSON, Robert (fl. 1668-1696). *The Making of Rockets. In Two Parts. The First Containing the Making of Rockets for the meanest Capacity. The other To make Rockets by a Duplicate Proposition, to 1000 pound Weight or higher.* London: for Robert Morden, 1696.

8° (154 x 98 mm). Woodcut diagrams in text. (First gathering sprung.) Contemporary panelled calf (rebacked with original backstrip preserved); cloth folding case. *Provenance*: E.N. de C. Andrade (bookplate).

VERY RARE FIRST EDITION. Anderson was a silk-weaver and mathematician who wrote numerous works on gunnery and firearms. *The Making of Rockets* is concerned with the problem of finding the proper mathematical proportion by which to increase or decrease the strength of gun metal, or as Anderson states in the dedicatory epistle of this work: "to increase or decrease the strength of Materials according to the Effects and Services required." He then applies these same principles to rocketry. "The work also gives the basic rules of rocket construction and recipes for various pyrotechnical effects, such as varicolored stars and rockets that 'swim upon water'" (Norman). Wing A-3105; Norman 54.

Estimate: $3,000-4,000

○248

ANDRY, Nicolas (1658-1742). *L'orthopédie ou l'art de prevenir et de corriger dans les enfans, les difformités du corps.* Paris: La Veuve Alix, and Lambert & Durand, 1741.

2 volumes, 12° (161 x 93 mm). Engraved frontispiece and 14 engraved plates by J. Guélard after A. Humblot. (Some very minor burn damage to a few fore-margins at beginning of first volume and end of second volume.) Contemporary French mottled calf, spines gilt (a few minor repairs).

FIRST EDITION OF THE FIRST BOOK ON ORTHOPEDICS. Andry was the first to name this specialty. "He advised attention to proper posture in the prevention and correction of spinal curvature; he had a practical knowledge of body mechanics. This is also the first book on diseases of children to include mention of chlorosis" (Garrison-Morton). Garrison-Morton 4301; Grolier *Medicine* 42; *Heirs of Hippocrates* 697; NLM/Blake, p. 15; Waller 418; Wellcome II, p. 45; Norman 55.

(2)

Estimate: $4,000-6,000

○249

[ANTHROPOLOGY]. — KNIGHT, Richard Payne (1750-1824). *An Account of the Remains of the Worship of Priapus, lately existing at Isernia, in the Kingdom of Naples...* London: T. Spilsbury, 1786. 4° (282 x 220 mm). Engraved frontispiece, 11 engraved plates and 6 engravings in text, extra-illustrated with 2 additional plates. Contemporary boards, uncut (rebacked); morocco folding case (broken). *Provenance*: Philip Earl of Hardwicke (bookplate). FIRST EDITION. "Knight's pioneering study of ancient priapic rituals and votive objects was issued for private circulation in an edition of approximately eighty copies" (Norman). Wellcome III, p. 403; Norman 1226. — Samuel Stanhope SMITH (1751-1819). *An Essay on the Causes of the Variety of Complexion and Figure in the Human Species.* New Brunswick: L. Deare for J. Simpson and New York: Williams and Whiting, 1810. 8° (225 x 143 mm). Original boards, uncut (rebacked). *Provenance*: B. Carke (early signature on title). Second edition. Norman 1956. — Charles WHITE (1728-1813). *An Account of the Regular Gradation in Man, and in different Animals and Vegetables, and from the Former to the Latter.* London: C. Dilly, 1799. 4° (302 x 253 mm., uncut). 4 engraved plates, including 2 folding. Contemporary marbled boards (rebacked, some rubbing). FIRST EDITION. Norman 2234.

(3)

Estimate: $800-1,200

○250

ARMSTRONG, George (1719-1789?). *An essay on the diseases most fatal to infants. To which are added rules to be observed in the nursing of children; with a particular view to those who are brought up by hand.* London: T. Cadell, 1767. 8° (170 x 106 mm). (Uncut). Original blue paper wrappers. FIRST EDITION OF ONE OF THE MOST IMPORTANT PEDIATRIC PUBLICATIONS OF THE PERIOD. In 1769 Armstrong founded the Dispensary for the Infant Poor, which eventually led to the establishment of specialist children's hospitals. Garrison-Morton 6324; Wellcome II, p. 57; Norman 72. — George ARMSTRONG. *An account of the diseases most incident to children from their birth till the age of puberty; with a successful method of treating them. To which is added an essay on nursing. Also a general account of the Dispensary for the Infant Poor, from its first institution in 1769 to the present time.* London: T. Cadell, 1777. 8° (201 x 124 mm). (Light browning and foxing to text). Later gilt-ruled quarter calf, leather spine label, marbled boards. Third edition. Expanded to include accounts of many childhood diseases. Garrison-Morton 6324; Norman 73. — [Walter HARRIS (1647-1732) and Hermann BOERHAAVE (1668-1738)]. *A full view of all the diseases incident to children containing a translation of Dr. Harris's book upon the acute diseases of infants, and of the eminent Dr. Boerhaave's treatise upon all their diseases, as well acute as chronical.* London: A. Millar, 1742. 12° (162 x 93 mm). Contemporary gilt-ruled calf. FIRST EDITION. With excerpts of works by Sylvius, Willis, Sydenham, Andry, Burton, Glisson and Wiseman. Norman 74.

(3)

Estimate: $1,500-2,000

251

ASELLI, Gaspare (1581-1625). *De lactibus sive lacteis venis quarto vasorum mesaraicorum genere novo invento... dissertatio.* Milan: Giovanni Battista Bidelli, 1627.

4° (223 x 169 mm). Collation: †^{4} ^{2}†^{4} A-K^{4} ^{3}†^{4}. 52 leaves. Engraved title, engraved author portrait, both by Cesare Bassano (both conjugate with text leaves), FOUR LARGE FOLDING CHIAROSCURO WOODCUT PLATES, printed in black, dark red and light red, woodcut initials and head-piece. Quire ^{3}†, containing the 4-leaf index, is bound between the first two quires († and ^{2}†) in this copy; although the order of binding varies between copies, the index was probably intended to be bound at the end, as in the Yale copy, in original boards. (Folding plates with a few short tears at guards, plate 1 with longer tear-repaired, occasional light dampstain to lower corners.) 18th-century vellum over pasteboard, red morocco lettering piece on spine; modern citron morocco folding case.

Provenance: DOMENICO COTUGNO (1736-1822), anatomist, physiologist, and book collector (signature on lower flyleaf, letterpress book label on front pastedown).

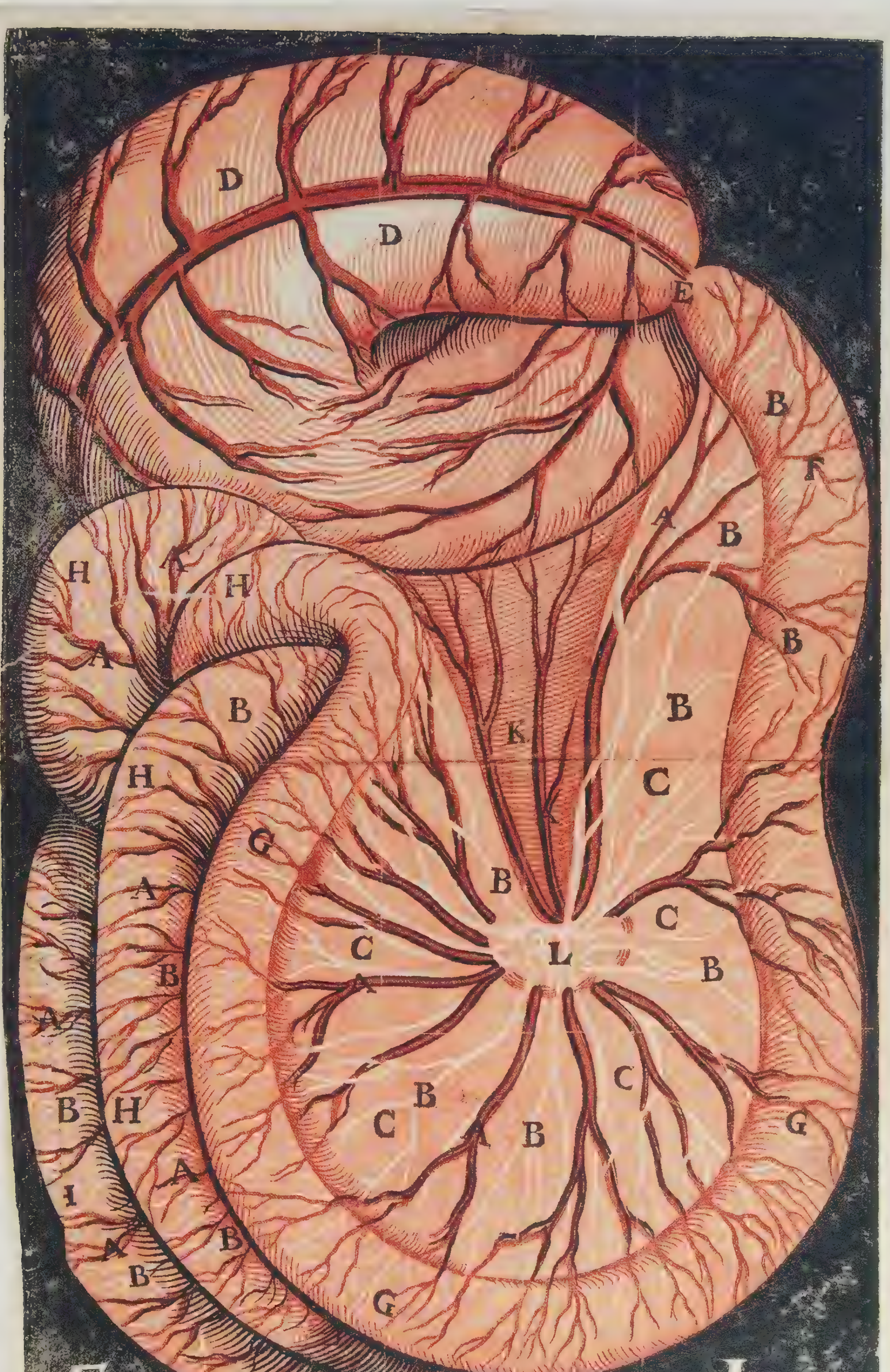
FIRST EDITION OF THE FIRST BOOK WITH ANATOMICAL ILLUSTRATIONS PRINTED IN COLOR. In 1622, during a vivisection performed upon a dog that had just fed, Aselli rediscovered the chylous or lacteal vessels, which Galen and Eristratus reported to have been documented by Hippocrates and Aristotle, but which had been overlooked by the anatomists of the sixteenth century. Aselli undertook a systematic study of the vessels in different species of animals, and established the cause and effect relationship of their turgidity with the intake of nourishment. Although he thus recognized their nature and function, he failed to trace them to the thoracic duct, instead mistakenly construing a connection with the liver, still considered the center of the venous system in the decade before publication of Harvey's *De motu cordis*. Aselli's error was rectified in the 1650s, when three scientists working independently, Jean Pecquet, Thomas Bartholin and Olof Rudbeck, nearly simultaneously discovered the thoracic duct (see lots 710 and 760). Harvey himself apparently did not know of Aselli's work.

Aselli's report of his findings — the only one of his studies to appear in print — was published after his death by his friends Senator Settala and Alessandro Tadino. In its use of color printing to more accurately distinguish the different types of vessels depicted, *De lactibus* was the "first publication to use colored illustrations in the interest of scientific accuracy" (Grolier *Medicine*). The striking woodcuts, which appear in this edition only, have been attributed either to Cesare Bassano or to his associate Domenico Falcini. Subsequent editions were illustrated with black and white reduced and engraved copies of the original woodcuts.

FINE ASSOCIATION COPY. Domenico Cotugno, a brilliant Neopolitan physician of humble parentage whose interests ranged from metaphysics and mathematics to the natural sciences, was renowned for his skill and selfless devotion to medicine. His many accomplishments included important discoveries in neurology and aural anatomy, and serious attempts to investigate and control smallpox and tuberculosis (see lots 382-385). An "outstanding example of the physician-humanist" (DSB), well-versed in art and architecture and a skilled linguist, Cotugno amassed a large library.

Choulant-Frank, pp. 240-241; Garrison-Morton 1094; Grolier *Medicine* 26; *Heirs of Hippocrates* 453; NLM/Krivatsy 446; Osler 1846; Waller 502; Wellcome 6837; Norman 76.

Estimate: $20,000-30,000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›252

[ASTRONOMY]. — OLBERS, Heinrich Wilhelm Matthias (1758-1840). *Abhandlung über die leichteste und bequemste Methode die Bahn eines Cometen aus einigen Beobachtungen zu berechnen.* Weimar: Industrie-Comptoirs, 1797. 8° (196 x 110 mm). Engraved folding plate, numerous tables. Contemporary tree calf gilt, red morocco spine label and gilt initinal "C" at foot of spine. *Provenance:* Jena University Library (withdrawal stamp on front free endpaper). FIRST EDITION. Olbers developed a new method for calculating a comet's parabolic orbit. Norman 1610 — Johann Elert BODE (1747-1826). *Von dem neu entdeckten Planeten.* Berlin: Buchhandlung der Gelehrten, 1784. 8° (177 x 105 mm.) Engraved folding plate. Contemporary speckled boards. *Provenance:* Old library stamp (front free endpaper). FIRST EDITION. Bode, the director of the astronomical observatory in Berlin, gave the name "Uranus" to the planet William Herschel had discovered in 1781. Norman 253. — Gabriel MOUTON (1618-1694). *Observationes diametrorum solis et lunae apparentium...* Lyon: Matthieu Liberal, 1670. 4° (230 x 160 mm). Numerous woodcut diagrams in text. Contemporaray sheep (rebacked, old spine laid down). FIRST EDITION. Norman 1560. — Alexis Claude CLAIRAUT (1713-1765). *Théorie du mouvement des comètes...* Paris: Michel Lambert, [ca. 1760]. 8° (197 x 123 mm). Contemporary marbled boards. FIRST EDITION. Norman 487. — Pierre Charles LE MONNIER (1715-1799). *Histoire celeste, ou recueil de toutes les observations astronomiques faites par ordre du roi...* Paris: Briasson, 1741. 4° (252 x 198 mm). Engraved frontispiece and 6 engraved folding plates. Contemporary calf, spine gilt with red morocco label, g.e. FIRST EDITION. "A work encompassing all of the astronomical observations made in France from 1666 to the date of publication" (Norman). Norman 1330. — William HERSCHEL (1738-1822). "Account of a Comet." In: *Philosophical transactions.* 71, part I, pp. 492-501. London: Lockyer Davis and Peter Elmsly, 1781. 4° (268 x 211 mm). 3 engraved folding plates. Contemporary half calf (worn). First appearance. Herschel, who discovered Uranus, is the first recorded discoverer of a planet. Dibner *Heralds of Science* 13; Norman 1058. — William HERSCHEL. "On the proper Motion of the Sun and Solar System; with an Account of several Changes that have happened among the fixed Stars since the Time of Mr. Flamstead." In: *Philosophical transactions* 73, part II, pp. 247-283. London: Lockyer Davis and Peter Elmsly, 1783. 4° (275 x 214 mm). 3 engraved folding plates. Contemporary quarter calf, vellum corners (worn). *Provenance*: John Ord (bookplate). First appearance. Norman 1059.

(7)

Estimate: $1,500-2,500

›253

ATKINS, John (1685-1757). *The Navy-Surgeon: or, a Practical System of Surgery.* London: Caesar Ward and Richard Chandler, 1734.

12° (161 x 97 mm). Contemporary calf gilt. *Provenance*: Samuel Goolden (signature on title and inscription on front free endpaper dated 1734).

FIRST EDITION. The work includes some useful case reports and contains the first English description of African trypanosomiasis (sleeping sickness). Garrison-Morton 2148; Norman 79.

Estimate: $1,000-1,500

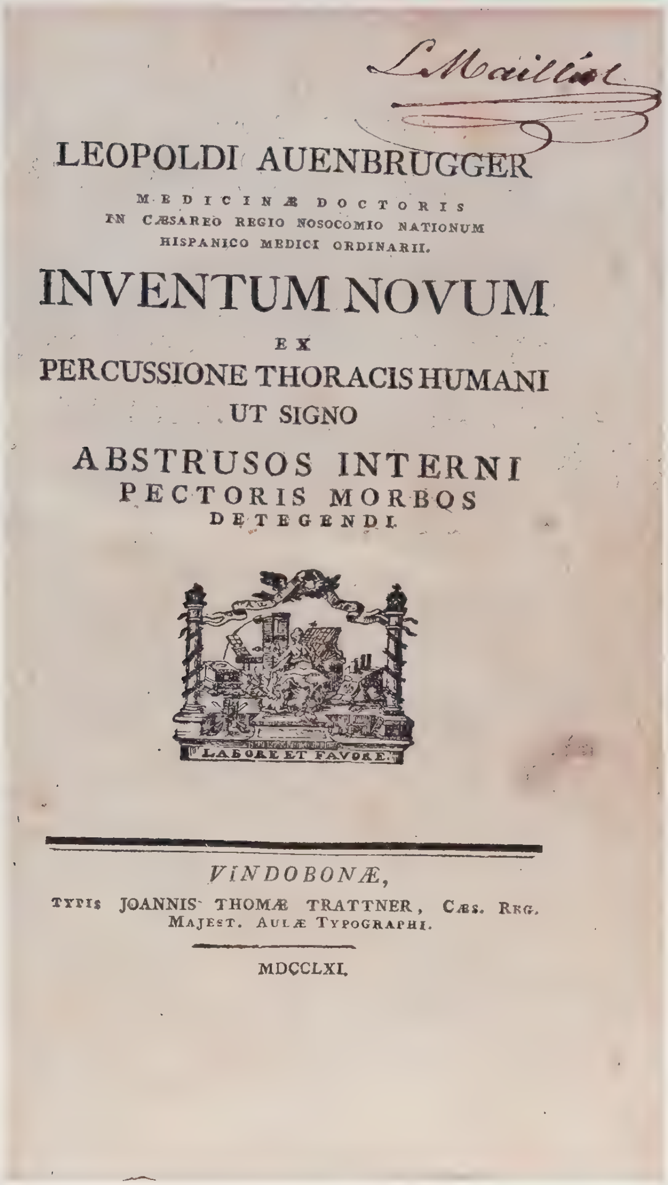
›254

AUENBRUGGER, Leopold (1722-1809). *Inventum novum ex percussione thoracis humani ut signo abstrusos interni pectoris morbos detegendi.* Vienna: Johann Thomas Trattner, 1761.

8° (203 x 120 mm). Printer's woodcut device on title, woodcut headpiece and initial, type ornament head- and tailpiece. (Occasional light foxing.) 19th-century quarter morocco (extremities rubbed); morocco-backed folding case.

Provenance: Dr. Jean Louis Léon Mailliot (fl. 1843-1874), author of several works on percussion and auscultation including *Histoire de la percussion* (Paris 1852) and *Traité pratique d'auscultation,* published in Paris, 1874 (signature on title and sheet of his stationery with notes concerning Auenbrugger's *Experimentum nascens de remedio specifico sub signo specifico in mania virorum* [Vienna 1776], pasted-down silhouette on verso).

FIRST EDITION, FIRST ISSUE, without the errata on F8v. A classic work of medical history, describing Auenbrugger's discovery of the diagnostic value of chest percussion, the "first



L Maillot

LEOPOLDI AUENBRUGGER
MEDICINÆ DOCTORIS
IN CÆSAREO REGIO NOSOCOMIO NATIONUM
HISPANICO MEDICI ORDINARII.
INVENTUM NOVUM
EX
PERCUSSIONE THORACIS HUMANI
UT SIGNO
ABSTRUSOS INTERNI
PECTORIS MORBOS
DETEGENDI.

LABORE ET FAVORE.

VINDOBONÆ,
TYPIS JOANNIS THOMÆ TRATTNER, CÆS. REG.
MAJEST. AULÆ TYPOGRAPHI.

MDCCLXI.

advance in physical diagnosis since the age of Hippocrates" (Grolier *Medicine*). Auenbrugger was the son of an innkeeper, and legend has it that it was his experience thumping wine casks to determine their fullness that led him to attempt an analogous diagnostic technique on his patients. It is certain that he was "aided in developing this diagnostic technique by his musical knowledge (he wrote the libretto for a comic opera by Antonio Salieri), which enabled him to perceive differences in tone when the chest was tapped. For seven years he had observed the changes in tone caused by the diseases of the lungs or the heart in patients at the Spanish Hospital, checking and controlling his findings by dissections of corpses and by experiments. In the *Inventum novum* he presented his findings ... Auenbrugger's method permitted the determination of disease-caused changes in the lungs and heart of a live patient and thus gave a new, dependable foundation to the diagnosis of chest diseases" (DSB). His discovery met with little enthusiasm among his peers, but shortly before his death Napoleon's physician Jean Nicolas Corvisart published a French translation of the book, substantially enlarged with his own observations (see lot 257), which finally led to its general acceptance by the medical community.

FINE ASSOCIATION COPY. Garrison-Morton 2672; Grolier *Medicine* 45; *Heirs of Hippocrates* 954; NLM/Blake, p. 23; Osler 1863; Waller 519; Wellcome II, p. 70; Norman 81.

Estimate: $7,000-10,000

)255

AUENBRUGGER, Leopold (1722-1809). *Experimentum nascens de remedio specifico sub signo specifico in mania virorum.* Vienna: Kurzbök, 1776. 8° (227 x 150 mm). Engraved portrait frontispiece of Baron de Swieten by J.G. Haid. Original blue wrappers, uncut (some chipping to edges). FIRST EDITION, first issue. Dedicated to his teacher de Swieten, Auenbrugger introduces in the above work camphor as a treatment for certain types of insanity. Waller 518; Wellcome II, p.70; Norman 87 — *Von der stillen Wuth oder dem Triebe zum Selbstmorde als einer wirklichen Krankheit, mit Original Beobachtungen und Anmerkungen.* Dessau: Buchhandlung der Gelehrten, 1783. 8° (192 x 118 mm). Contemporary speckled boards. *Provenance:* Dr. Trotler (contemporary signature and notations on endpapers). FIRST EDITION of this psychological study of the suicidal urge. Wellcome II, p. 70; Norman 88.

(2)

Estimate: $800-1,200

)256

[AUENBRUGGER, Leopold (1722-1809)]. ROZIÈRE DE LA CHASSAGNE. *Manuel des pulmoniques, ou traité complet des maladies de la poitrine ... On y a joint une nouvell méthode de reconnoître ces mêmes maladies par la percussion du thorax, trad. du latin d'Auenbrugger.* Paris: chez Humaire, 1770.

12° (163 x 94 mm). Contemporary mottled calf, spine gilt (head of spine with minor repair).

FIRST EDITION, containing the first edition in French of Rozièr's translation of Auenbrugger's *Inventum novum* (see lot 254). It appears to have been almost completely ignored, perhaps because it was inadequately translated and issued at the end of Rozier's work on pulmonary diseases. Waller 8276; Wellcome II, p. 70; Norman 82.

Estimate: $1,000-1,500

)257

AUENBRUGGER, Leopold (1722-1809). *Nouvelle méthode pour reconnaitre les maladies internes de la poitrine par la percussion de cette cavité.* Translated from Latin into French by Jean Corvisart. Paris: Migneret, 1808.

8° (200 x 127 mm). Contemporary green quarter calf (light wear to spine ends and corners).

Provenance: Monsieur Abraham (presentation inscription from the translator on the half-title: "À Monsieur Abraham / de la part de son dévoué / serviteur Corvisart."); Dr. A. Foucart (bookplate); Charles Frederice Terence East (1894-1967), see Garrison-Morton 3161, (bookplate).

PRESENTATION COPY FROM THE TRANSLATOR. "Published the year before Auenbrugger's death, Corvisart's extensively annotated translation of the *Inventum novum* convinced the medical community of the value and utility of Auenbrugger's discovery" (Norman). Garrison-Morton 2672; *Heirs of Hippocrates* 955; Osler 1866; Waller 526; Wellcome II, p. 70; Norman 83.

Estimate: $800-1,200

)258

[AUENBRUGGER, Leopold (1722-1809)]. *Original Cases with Dissections and Observations illustrating the use of the Stethoscope and Percussion in the Diagnosis of Diseases of the Chest, also commentaries on the same Subjects selected and translated from Auenbrugger, Corvisart, Laennec and others.* Translated into English from the Latin and edited by John Forbes (1787-1861). London: T. and G. Underwood, 1824.

8° (214 x 134 mm). 3 engraved plates by J.P. Vibert, after the illustrations in Laennec's *De l'auscultation médiate* (library stamp on title and B3.) Contemporary half calf (rebacked in antique calf); modern cloth folding case. *Provenance:* Presented by Sir John Forbes to the University Library, Aberdeen (bookplate and cancelled stamp on endpaper).

FIRST EDITION, PRESENTATION COPY FROM THE TRANSLATOR. Contains the first (and only) edition in English of Auenbrugger's *Inventum novum* ("Treatise on Percussion of the Chest") with Corvisart's commentaries followed by excerpts from Laennec's "Mediate Auscultation," as well as numerous case studies. Waller 3119; Norman 84.

Estimate: $1,200-1,800

○259

[AUENBRUGGER, Leopold (1722-1809)]. *Original Cases with Dissections and Observations illustrating the use of the Stethoscope and Percussion in the Diagnosis of Diseases of the Chest, also commentaries on the same Subjects selected and translated from Auenbrugger, Corvisart, Laennec and others.* Translated into English from the Latin and edited by John Forbes (1787-1861). London: T. and G. Underwood, 1824.

8° (227 x 140 mm., uncut). 3 engraved plates by J.P. Vibert, after the illustrations in Laennec's *De l'auscultation médiate.* Contemporary blue boards, with later cloth spine; modern cloth folding case. *Provenance:* Chester Infirmary Library from H.T. Moor (ink inscription on title); Chester Library (bookplate); Thomas A. McGraw (bookplate).

FIRST EDITION, containing the first (and only) edition in English of Auenbrugger's *Inventum novum* ("Treatise on Percussion of the Chest"), with Corvisart's commentaries followed by excerpts from Laennec's "Mediate Auscultation," as well as numerous case studies. Waller 3119; Norman 85.

Estimate: $1,200-1,800

○260

AUENBRUGGER, Leopold (1722-1809). *Neue Erfindung mittelst des Anschlagens an den Brustkorb, als eines Zeichens, verbrogene Brust-Krankheiten zu endecken... Begleitet mit einem Vorworte von Joseph Skoda.* Translated and edited by Samuel Unger. Vienna: Wallishausser, 1843.

8° (218 x 141 mm). Original yellow printed boards, blue paper spine (minor chipping to spine ends).

First Edition in German of the *Inventum novum* with an introduction by Joseph Skoda who was the author of *Abhandlungen über Perkussion und Auskultation.* Waller 522; Norman 86.

Estimate: $600-800

○261

BACON, Francis (1561-1626). *The Twoo Bookes of Francis Bacon. Of the proficience and advancement of Learning, divine and humane.* London: [Thomas Purfoot and Thomas Creede] for Henrie Tomes, 1605.

4° (186 x 139 mm). Without the 2 added leaves of errata at end present in some copies ("not often found" according to Gibson). Contemporary English blind-tooled calf (rebacked preserving original spine). *Provenance*: Thomas H. Hollway (faint purchase inscription on title-page: "bought at John Woodford Sale 15 May 1816"); Louis E. Goodman (bookplate).

FIRST EDITION OF THE "PREPARATIVE OR KEY FOR THE OPENING OF THE INSTAURATION" (Grolier/Horblit). The *Advancement of learning* was the first of two works in which Bacon expounded his philosophy of scientific method. It was expanded and latinized as *De augmentis scientiarum* in 1623. "In the *Twoo bookes*, Bacon concerned himself primarily with the classification of philosophy and the sciences and with developing his influential view of the relation between science and theology" (Norman). It was the only work Bacon ever published in English. Gibson 81; Grolier/Horblit 8a; Pforzheimer 36; STC 1164; Norman 97.

Estimate: $1,000-1,500

262

BACON, Francis (1561-1626). *Instauratio magna* [*Novum organum*]. London: John Bill, 1620.

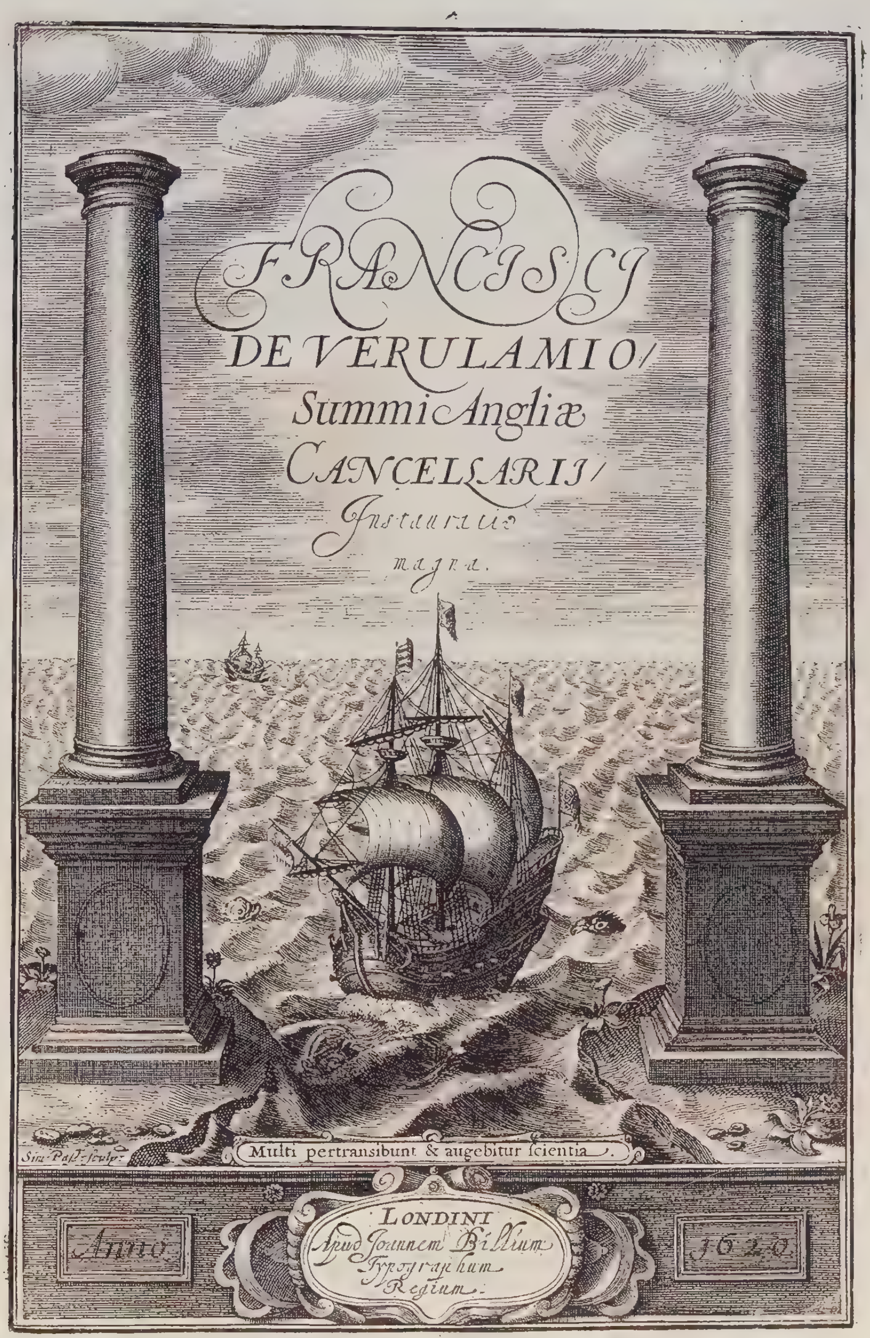
2° (323 x 207 mm). Engraved title by Simon van de Passe, woodcut headpieces and historiated initials. Second issue, with e3 cancelled and reprinted on e4r, adding an errata and omitting the name of Bill Norton's name from the colophon. Small cancel slip correcting a preposition in the last line of T1r; c4 blank and present; π1 blank removed. Printed on large paper with the crown watermark. (Lower edges of first few leaves a bit soiled and tearing in places, minor marginal tears to first leaf of dedication, E2 and e1.) Contemporary blind-panelled calf, board edges gilt, edges red-sprinkled (later morocco lettering-piece, a few small repairs); morocco folding case.

Provenance: Early ink-lettered shelfmark(?) 17/8 on fore-edge (the 8 a larger numeral written over the 17); Louis H. Silver (booklabel, Sotheby's, 8 November 1965, lot 14, to John Howell).

FIRST EDITION, LARGE-PAPER COPY, of Bacon's manifesto for a new philosophy of scientific method, relying on laws deduced from observation and investigation. Bacon originally conceived his revolutionary work in six parts, of which only the first and second parts, the *De augmentiis scientiarum* (1623, a greatly expanded version of the *Advancement of learning*) and the *Novum organum* were completed. More than a mere portion of the *Instauratio*, however, the *Novum organum*, as its title implies, "contains the central ideas of Bacon's system, of which the whole of the *Instauratio* is only the development" (Pforzheimer, p. XXI). Bacon's aim was to lay an entirely new foundation for science, "neither leaping to unproved general principles in the manner of the ancient philosophers nor heaping up unrelated facts in the manner of the 'empirics'" (DSB). He conceived a new method of acquiring knowledge of the world through observation, experiment and inductive reasoning, which he envisioned as a tool for the "'total reconstruction of sciences, arts and all human knowledge... to extend the power and dominion of the human race... over the universe'.. Bacon made no contributions to science itself, but his insistence on making science experimental and factual, rather than speculative and philosophical, had powerful consequences.... As a philosopher Bacon's influence on Locke and through him on subsequent English schools of psychology and ethics was profound. Leibniz, Huygens and particularly Robert Boyle were deeply indebted to him, as were the *Encyclopédistes* and Voltaire..." (PMM). His vision inspired the creation of the Royal Society and the other early scientific academies.

A FINE COPY. Gibson 103b; Dibner *Heralds of Science* 80; Grolier/Horblit 8b; Pforzheimer App. 1; PMM 119; STC 1163; Norman 98.

Estimate: $10,000-15,000



FRANCISCI
DE VERULAMIO/
Summi Angliæ
CANCELLARIJ/
Instauratio
magna.

Sim: Paſs: ſculp:

Multi pertranſibunt & augebitur ſcientia.

Anno 1620

LONDINI
Apud Joannem Billium
Typographum
Regium.

ɔ263

BADO, Sebastiano (fl. 1640-1676). *Anastasis corticis peruviae; seu chinae chinae defensio, Sebastiani Badi ... Contra ventilationes Joannis Jacobi Chifletii, gemitusque Vopisci Fortunati Plempii ... Opus in tres libros distinctum, & in eis documenta medicinae & philosophie — Phlebotomiae necessitas ... in variolis, morbillis, exanthematis, etiam apparentibus.* Genoa: Petrus Joannes Calenzani, 1663.

2 works in one volume. 4° (197 x 148 mm). (Light staining at beginning.) Contemporary limp vellum.

FIRST EDITION, with index and errata list for both works at end. "A defence of the virtues of Peruvian bark. Bado includes evidence to show that 'fever bark' was introduced into Spain in 1632" (Garrison-Morton). The second work is a defense of bloodletting. Garrison-Morton 1826; NLM/Krivatsy 616 & 617; Osler 1898; Wellcome II, p. 84; Norman 100.

Estimate: $1,000-1,500

ɔ264

BAGLIVI, Giorgio (1668-1707). *De fibra motrice, et morbosa ... Epistola ad Alexandrum Pascoli.* Perugia: Constantino, 1700. 4° (207 x 155 mm). Later boards. FIRST EDITION. Baglivi was the first to distinguish between smooth and striated muscle. *Heirs of Hippocrates* 737; NLM/Krivatsy 576; Wellcome II, p. 84; Norman 104. — *De praxi medica... accedunt dissertationes novae.* Rome: Domenico Antonio Hercules, 1696. 8° (160 x 105 mm). Engraved plate. Contemporary vellum, spine ink-lettered. *Provenance*: Matthew Regal (gift inscription from Martin Giovanelli in a contemporary hand on front free endpaper). FIRST EDITION. Baglivi is calling for a return to the Hippocratic principle of sound clinical observation. *Heirs of Hippocrates* 736; NLM/Krivatsy 577; Norman 103. — *Opera omnia medico-practica et anatomica.* Lyons: Anisson and Jean Posuel, 1704. 4° (224 x 171 mm). Engraved portrait and one engraved plate. Contemporary vellum, spine ink-lettered. *Provenance*: Charles Lucas, M.D. (bookplate). First collected edition. Garrison-Morton 68; *Heirs of Hippocrates* 738; Norman 105. — *Opera omnia medico-practica, et anatomica.* Edited by Philippe Pinel. Paris: Pierre J. Duplain, 1788. 2 volumes, 8° (193 x 119 mm). Contemporary mottled sheep gilt. Norman 106.

(5)

Estimate: $1,200-1,800

ɔ265

BAILLIE, Matthew (1761-1823). *The morbid anatomy of some of the most important parts of the human body.* London: J. Johnson, and G. Nichol, 1793.

8° (214 x 127 mm). (Title-page slightly soiled, very minor occasional foxing to text.) Contemporary mottled calf (rebacked, corners repaired, edges worn).

FIRST EDITION OF "THE FIRST SYSTEMATIC TREATISE ON PATHOLOGY AND THE FIRST WORK ON THE SUBJECT IN ENGLISH" (Norman). Baillie was the nephew of the surgeons John and William Hunter. Much of the research for this work was done in William Hunter's medical museum of preserved specimens. Baillie believed that changes in organs observed in post-mortem examinations could aid understanding of the causes of the changes. His work concentrated particularly on the thoracic and abdominal organs and the brain. Garrison-Morton 2281; Grolier *Medicine* 51A; *Heirs of Hippocrates* 1176; NLM/Blake, p. 27; Wellcome II, p.87; Norman 108.

Estimate: $1,000-1,500

○266

BAILLIE, Matthew (1761-1823). *A series of engravings, accompanied with explanations, which are intended to illustrate the morbid anatomy of some of the most important parts of the human body.* London:W. Bulmer & Co. for J. Johnson, and G. and W. Nicol, 1803. 2° (333 x 260 mm). 73 engraved plates after watercolor drawings by William Clift (1775-1849) (some minor foxing to a few plates). Contemporary straight-grained russia gilt, spine tooled in gilt and blind with gilt-lettered title, gilt arms surmounted by initials "SMM" on covers, t.e.g., edges uncut (some wear to joints and spine, top edge of upper cover faded).

FIRST COLLECTED EDITION, previously published in ten parts, from 1799-1802. "The complete work, with additional half-title, dedication (to Dr. Pitcairn) and index, was issued in 1803; for this edition, the first fascicule was reprinted in slightly larger type, so that some lines have fewer words and some paragraphs more lines than in the first printing" (Norman). The first collection of pathological illustrations. The work was intended to accompany the author's *Morbid anatomy*, but nevertheless includes detailed explanations of each plate. Garrison-Morton 2282; Grolier *Medicine* 51B; NLM/Blake, p. 27; Wellcome II, p. 87; Norman 109.

Estimate: $2,000-3,000

○267

BAILLOU, Guillaume de (1538-1616). *Opuscula medica, de arthridite, de calculo et de urinarum hypostasi... Item libellus... de rheumatismo & pleuritide dorsali.* Edited by Jacques Thévart. Paris: Jacques Quesnel, 1643 (Part 4: 1642).

4° (222 x 161 mm). 4 parts in one, continously paginated, part 4 (*Liber de rheumatismo*) with separate title-page, printed shoulder notes, woodcut head- and tail-piece ornaments, woodcut initials. (Title browned, scattered foxing, some minor staining to upper margins.) Contemporary speckled sheep panelled in gilt, red morocco lettering-piece (large scrape to lower cover, joints and extremities rubbed.) *Provenance*: Effaced inscription on title; Chevalier Sanlaville, seigneur de Belletou-Bugey[?] (coat-of-arms in 19th-century? pen-and ink and wash on front pastedown).

FIRST EDITION OF THE FIRST BOOK ON RHEUMATISM. Baillou, court physician under Henri IV and dean of the Faculté de Médecine, was known as "the most erudite and well-read doctor of his time... Baillou fought against the tradition of Arab medicine and revived the Hippocratic tradition of clinical observation, human understanding, and macrocosmic concepts of illness and their treatment" (DSB). He was the first to correctly describe several disesases, including diphtheria and measles. Most of Baillou's writings were published posthumously. Part IV of the present work, the *Liber de rheumatismo*, is the first book devoted to rheumatism, a term that Baillou borrowed from the Greek and used in its modern sense of acute polyarthritis, unconnected to gout. "Baillou attributed to rheumatism all pain in the external *habitus corporis*, that is, all areas situated between the skin and the internal parts of the body... To this infinitely variable disease Baillou related all pains of the external body, from scurvy, smallpox, and lead poisoning to those thought to be caused by wind, worms, and other obscure agents" (DSB). Garrison-Morton 4485; NLM/Krivatsy 589; Wellcome II, p. 87; Norman 110.

Estimate: $1,500-2,000

○268

BANISTER, Richard (fl. 1620). *A Treatise of one hundred and thirteene diseases of the Eyes, and Eye-Liddes. The second time published, with some profitable additions of certaine Principles and experiments.* London: Felix Kyngston for Thomas Man, 1622.

12° (133 x 75 mm). (Piece torn away on upper margin on G8 affecting headline and a few letters, slight worming at end affecting some letters, some marginal browning.) Contemporary English calf (a little wear to joints).

Although much of this is a translation of Jacques Guillemeau's *Traité des maladies de l'oeil* (published 1585), the first part comprises the first edition of Banister's *Breviary of the eyes*, a 112-page tract containing numerous original observations. Banister "was an itinerant but honest oculist; he was the first to point out that hardness of the eyeball is an essential diagnostic sign of glaucoma" (Garrison-Morton). Garrrison-Morton 5820; STC 12499.5 (under Guillemeau); Norman 114.

Estimate: $2,500-3,500

5269

BARBA, Alvaro Alonso (1569 - ca. 1640). *The Art of Metals, In which is Declared the manner of their Generation, and the concomitants of them. In two books - The Second Book of the Art of Mettals.* Both translated by Edward Montagu, the first Earl of Sandwich (1625-1672). London: for S. Mearne, 1674.

Two parts in one volume, 8° (148 x 92 mm). Engraved plate showing a furnace and related vessels. (Some minor worming on title and first few leaves, affecting some letters slightly.) Contemporary English speckled calf (rebacked). *Provenance*: John Scott of Galla (bookplate) and Hugh Scott of Galla (signature on title-page).

Second edition in English (first published in English in 1670) of this popular work by the Spanish priest, Barba, who was sent by the Church in 1588 to Peru to study mineral deposits and local mining techniques. The work was originally published in 1640 under the title *El arte de los metales*, and was "the first significant treatise on metals to be written in Spanish, and the only seventeenth-century work on its subject that was largely original" (Norman). Duveen, p. 42; Hoover 83; Palau 23630 (note); Wing B-678 and B-682; Wellcome II, p. 96; Norman 115.

Estimate: $1,500-2,000

5270

BARD, John (1716-1799). "A case of an extra-uterine foetus." In: *Medical observations and inquiries.* Vol. II, pp. 369-372. London: William Johnston, 1762. 8° (198 x 124 mm). Contemporary calf (some wear to edge of upper cover). FIRST APPEARANCE. John Bard performed the first abdominal operation for extrauterine pregnancy in America. The above is the first scientific paper on a surgical topic to emanate from the North American colonies. Garrison-Morton 6155; Norman 116. — Willam HUNTER (1718-1783). "A singular case of the separation of the ossa pubis." In: *Medical observations and inquiries.* Vol. II, pp. 321-339. FIRST APPEARANCE. Garrison-Morton 6254; Norman 1124. — Charles WHITE (1728-1813). "An account of a new method of reducing shoulders, (without the use of an ambe) which have been several months dislocated, in cases where the common methods have proved ineffectual." In: *Medical obervations and inquiries.* Vol. II, pp. 373-381. FIRST APPEARANCE. Garrison-Morton 4407; Norman 2230.

Estimate: $800-1,200

5271

BARD, Samuel (1742-1821). *Tentamen Medicum inaugurale, de viribus opii.* Edinburgh: A. Donaldson & J. Reid, 1765. 8° (195 x 126 mm). Disbound. *Provenance*: Dr. Rogerson (contemporary inscription on title). FIRST EDITION of Bard's doctoral thesis at the University of Edinburgh on the powers of opium. Norman 117.

Estimate: $800-1,200

5272

BARD, Samuel (1742-1821). *A discourse upon the duties of a physician, with some sentiments, on the usefulness and necessity of a public hospital: delivered before the President and Governors of King's College, at the Commencement held on the 16th May, 1769.* New York: A. & J. Robertson, 1769. 8° (197 x 118 mm) (some browning and foxing to text). Modern calf. *Provenance*: Richard Nichols (presentation inscription from the author on the title-page: "To Richard Nichols Esq. from his humble serv[ant]/S. Bar[d]"); Long Island Historical Society (stamp); King's County, Medical Society Library (stamp).

FIRST EDITION. PRESENTATION COPY OF THE FIRST AMERICAN TREATISE ON MEDICAL ETHICS" (Garrison-Morton). Bard was one of the founders of King's College, New York. Garrison-Morton 1763; Norman 118.

Estimate: $2,000-3,000

ɔ273

BARD, Samuel (1742-1821). *Enquiry into the nature, cause and cure, of the angina suffocativa, or sore throat distemper* ... New York: S. Inslee and A. Car, 1771. 8° (173 x 110 mm). (Some pagination cropped or shaved.) Later half cloth, marbled boards.

FIRST EDITION of "one of the earliest accurate descriptions of diphtheria" (Garrison-Morton 5052). Norman 119.

Estimate: $1,000-1,500

ɔ274

BARD, Samuel (1742-1821). *A Compendium of the theory and practice of midwifery, containing practical instructions for the management of women during pregnancy, in labour, and in child-bed.* New York: Collins and Perkins, 1807. 12° (175 x 102 mm). Contemporary sheep, gilt-ruled spine with gilt-lettered red leather spine label. *Provenance*: New York Hospital (contemporary inscription on front free end paper and later stamp).

FIRST EDITION OF THE FIRST IMPORTANT AMERICAN WORK ON OBSTETRICS. Samuel Bard was a founder of the New York Hospital and also of a medical school affiliated both to this hospital and to King's College (now Columbia University). Garrison-Morton 6163.1; Norman 120.

Estimate: $800-1,200

ɔ275

BARTHOLIN, Erasmus (1625-1698). *Experimenta crystalli Islandici disdiaclastici quibus mira & insolita refractio detegitur.* Copenhagen: Daniel Paulli, 1669.

4° (204 x 151 mm). Printer's engraved vignette on title-page, woodcut diagrams in text. (Some minor pale spotting on title and preliminaries.) Contemporary calf, spine gilt (spine ends repaired).

VERY RARE FIRST EDITION OF BARTHOLIN'S MAJOR CONTRIBUTION TO SCIENCE. "Erasmus Bartholin was the first to investigate double refraction of light in Iceland spar (calcite), whose remarkable refractive properties he explained in terms of the Cartesian theory of light" (Norman). He showed that both rays (*solita* and *insolita*) are produced by refraction and argued that double refraction could be explained in the Cartesian theory of light by assuming that there was a double set of "pores" in the spar. This phenomenon proved to be of great theoretical interest to both Huygens and Newton. Bartholin's rare work is important in the fields of crystallography, minerology, and optics. Burke, *Origins of the science of crystals*, pp. 67 and 136; Norman 124.

Estimate: $2,000-3,000

ɔ276

BATTIE, William (1703-1776). *A Treatise on Madness.* London: for J. Whiston, and B. White, 1758.

4° (259 x 201 mm). (Some scattered foxing and spotting, several leaves loose at end and with margins slightly frayed.) Modern half calf.

FIRST EDITION OF "THE FIRST ENGLISH TEXTBOOK ON THE SUBJECT" (Garrison-Morton). Diamond 24.7; Garrison-Morton 4919.1; *Heirs of Hippocrates* 860; Wellcome II, p. 115; Norman 137.

Estimate: $1,500-2,500

277

BAUDELOCQUE, Jean Louis (1746-1810). *L'art des accouchemens.* Paris: Méquignon, 1781.

2 volumes, 8° (195 x 124 mm). 14 engraved folding plates by Jean-Jacques Avril. Contemporary mottled calf, spines gilt.

FIRST EDITION. "Baudelocque invented a pelvimeter and advanced the knowledge of pelvimetry and the mechanism of labour. The external conjugate diameter is known as 'Baudelocque's diameter'" (Garrison-Morton). Garrison-Morton 6255; *Heirs of Hippocrates* 1061; Wellcome II, p. 115; Norman 138.

(2)

Estimate: $800-1,200

278

BAYER, Johann (1572-1625). *Uranometria, omnium asterismorum continens schemata, nova methodo delineata, aeris laminis expressa.* Augsburg: Christoph Mang, 1603.

2° (344 x 243 mm). Engraved title, 3 leaves preliminary text, 51 double-page engraved star maps by Alexander Mair, on guards throughout, letterpress descriptive text printed on rectos/versos of the maps, printer's woodcut device on colophon page, woodcut headpieces, initials and tailpiece. (Engraved title darkened and backed in heavy paper repairing long tear, dedication leaf with repaired tear affecting headpiece and a few letters on verso and with upper and lower margins strengthened, worming at gutters slightly affecting maps 20 and 24, small light crease to map 42, faint dampstain to upper fore-corners). 18th-century vellum over pasteboard, title lettered on spine.

Provenance: Augsburg, Benedictines of Sts. Ulrich and Afra (contemporary inscription on title, 18th-century engraved bookplate); Augsburg Stadtsbibliothek (19th-century inkstamp on title, later withdrawal stamp on verso).

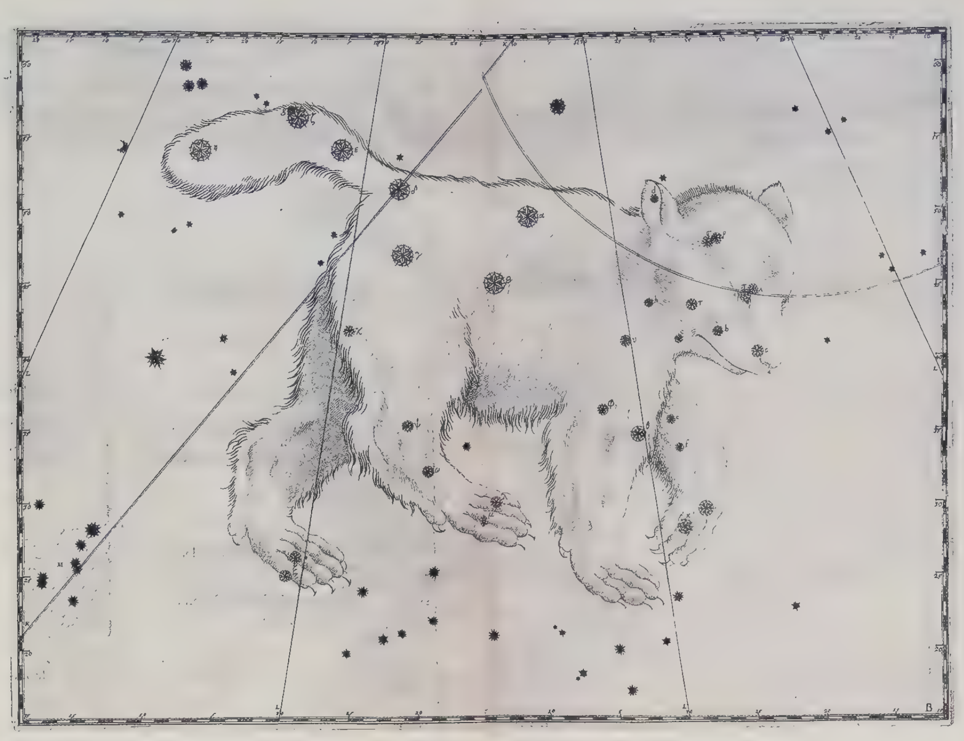
FIRST EDITION OF THE FIRST ACCURATE STAR ATLAS. Earlier star catalogues followed Ptolemy's *Almagest* in using verbal descriptions to describe the location of stars within the 48 northern constellations of classical astronomy, an awkward system that occasioned constant errors and misapprehensions. Bayer, a lawyer and amateur astronomer, was the first to identify the location of stars within a constellation by the use of Greek letters (with the addition of the Latin alphabet for constellations with more than 24 stars). This simple innovation greatly facilitated the identification of stars with the naked eye, just five or six years before the invention of the telescope, and Bayer's stellar nomenclature is still in use today. Bayer used Brahe's recent observations for the northern sky, and included, in chart 49, twelve new southern constellations observed by the Dutch navigator Pieter Dirckzoon Keyzer and reported by Pedro de Medina. To simplify identification of the stars Bayer included in his typographic descriptions both the traditional star numerations within each constellation and the many names for the constellations employed since Ptolemy. The graceful figures of Mair's charts were based on those of Jacobo de Gheyn in Grotius' edition of the *Syntagma arateorum* (1600). Deborah Warner, *The sky explored: celestial cartography 1500-1800* pp. 18-19; Zinner 3951; Norman 142.

[*With*:]

BAYER. *Explicatio characterum aeneis Uranometrias imaginum, tabulis insculptorum, addita, & commodiore hac forma tertium redintegreta.* Augsburg: Johann Praetorius for Johann Gerlin, 1654. 4° (192 x 146 mm). Publisher's engraved device on title. (Final blank removed, foxing and bronwing.) Contemporary vellum over thin pasteboard. Second separate edition of the descriptive text without the engravings (first published in 1624). Norman 143.

(2)

Estimate: $15,000-20,000



›279

BEARDSLEY, Hezekiah (1748-1790). “Case of a schirrous in the pylorus of an infant.” In: *Cases and Observations; by the Medical Society of New-Haven County, in the State of Connecticut.* New-Haven: J. Meigs, 1788.

8° (181 x 106 mm). (Some margins shaved close, some light browning to text.) Modern calf antique; cloth slipcase. *Provenance*: Royal Society of Edinburgh (cropped inscription on title-page: “To the Royal Medical Soc[iety] Edinb[urgh]”).

FIRST PRINTING OF ONE OF THE EARLIEST AMERICAN CONTRIBUTIONS TO PEDIATRICS. Beardsley's account was “the first American case report on congenital hypertrophic pyloric stenosis” (Garrison-Morton). This was the only volume published of *Cases and observations by the Medial Society of New Haven County*, the first American medical periodical. Austin 1258; Garrison-Morton 3426; Norman 149.

Estimate: $1,000-1,500

›280

BECHER, Johann Joachim (1635-1682). *Actorum Laboratorii Chymici Monacensis, seu Physicae subterraneae libri duo*. Frankfurt: for Johann David Zunner, 1667.

8° (156 x 92 mm). Folding engraved frontispiece, representing the earth as a matrix (some stains and repairs with slight loss). (Title-page with lower margin clipped, some browning and staining to text.) Modern calf, spine gilt. *Provenance*: early owner's signature deleted on title-page.

FIRST EDITION OF BECKER'S IMPORTANT WORK CONTAINING HIS THEORY OF MATTER. In the tradition of Paracelsus and Helmont, Becher set forth in this work his alchemical and chemical theories. As represented symbolically in the frontispiece of this work, Becher believed that air, water and earth were the true elementary principles, with the latter two forming the basis of all material things. He disagreed with the traditional theories of the four elements, as well as the Paracelsian principles of sulfur, salt and mercury. “An important work, which contains Becher's theory of matter, later adopted by his pupil [Georg Ernst] Stahl, and therefore the basis of the phlogiston theory. It was Becher's assumption that on burning substances or calcining metals the ‘terra pinguis’ escaped” (Duveen). Despite the reference to a second book on the title, the work consists of only one book; two supplements were added later (see below). BM/STC *German* (17th-c.) B487; Duveen p. 56; NLM/Krivatsy 981; Partington II, pp. 637-52; Wellcome II, p. 125; Norman 153.

[*Bound with*:]

BECHER, Johann Joachim. *Experimentum chymicum novum, quo artificialis & instantanea metallorum generatio & transmutatio ad oculum demonstratur.* Frankfurt: Heinrich Friese for Johann David Zunner, 1671. 8°. (Some browning and spotting.) FIRST EDITION of the first supplement to the *Physica subterranea*, dealing with the generation and transmutation of metals. The work is a defence of alchemy directed against his opponent, Werner Rolfinck. “Becher accepted the common belief of his time that metals grow in the earth” (Norman). A second supplement was published in 1675, also by Zunner. See BM/STC *German* (17th-c.) B487; Duveen, p. 56; Norman 154.

Estimate: $1,000-1,500

›281

BEDDOES, Thomas (1760-1808). *Hygëia: or Essays Moral and Medical, on the causes affecting the personal state of our middling and affluent classes.* Bristol: J. Mills for R. Phillips, 1802-03.

3 volumes, 8° (209 x 126 mm). Contemporary tree calf, smooth spine gilt with red and black lettering pieces (minor wear to joints and edges). *Provenance*: L.H. Master (signature on title-page in third volume); Charles Legh Hoskins Master (engraved armorial bookplates).

FIRST EDITION. This collection of essays includes "On the nature and prevention of some of the disorders, commonly called nervous," one of the most comprehensive early studies of incipient epilepsy (essay 9). "The tenth essay, a continuation of the ninth, includes Beddoes' plea for exact terminology to describe mental diseases, and his proposal that full-blown insanity should be studied in conjunction with incipient madness in order to gain the knowledge necessary for treatment and prevention" (Norman). Each essay is separately paginated and contains a section title.

"The N.U.C. calls for a portrait, possibly in error, as neither the Norman copy nor the copy at the University of Chicago possesses one" (Norman). Hunter-Macalpine, pp. 578-83; Wellcome II, p. 129; Norman 160.

(3)

Estimate: $600-800

○282

BELL, Benjamin (1749-1806). *A Treatise on the theory and management of ulcers. With a dissertation on white swellings of the joints. To which is prefixed, an essay on the chirurgical treatment of inflammation and its consequences.* Edinburgh: Charles Elliot, 1778.

8° (205 x 120 mm). Contemporary calf (rebacked, corners renewed), red leather spine label. *Provenance*: Thomas Waters, sixth regiment infantry (inscription); Robert Chambers (deleted signature); Mr. Walters, asst. surgeon (signature).

FIRST EDITION of the author's first professional treatise. It includes a classification of ulcers into 11 types. Garrison-Morton 5578; Waller 846; Wellcome II, p. 134; Norman 165.

Estimate: $600-900

○283

BELL, Sir Charles (1774-1842). *The anatomy of the brain, explained in a series of engravings.* London: C. Whittingham for T. Longman and others, 1802. 4° (310 x 244 mm). 12 stipple-engraved plates (9 hand-colored) by Thomas Medland, Freeman, John Stewart and William Archibald after drawings by the author (some very slight browning). Original half vellum, blue boards, printed label on upper cover. *Provenance*: William Henry Williams (1771-1841), military physician (signature on front free endpaper). FIRST EDITION. *Heirs of Hippocrates* 1297; Waller 860; Wellcome II, p. 315; Norman 168. — BELL. *A series of engravings explaining the course of the nerves.* London: C. Whittingham for T. Longman and others, 1803. 2° (312 x 246 mm). 9 engraved plates (3 folding) by Robert Scott, J. Grant and Daniel Lizars after drawings by the author. (Text and plates foxed, some browning.) Original paper-backed boards, printed label on upper cover and spine. *Provenance*: William Edward Hyde (gift inscription from F. Graham dated 1855 on title-page); Dr. S. W. Coombs (signature dated 1903). FIRST EDITION. Wellcome II, p. 135; Norman 169.

(2)

Estimate: $2,000-3,000

○283A

BELL, Sir Charles (1774-1842). *Observations on injuries of the spine and of the thigh bone in two lectures, delivered in the school of Great Windmill Street.* London: C. Hullmandel for Thomas Tegg, 1824. 4° (325 x 252 mm). 9 lithographed plates after drawings by the author (some very minor browning of text and plates). Original gray boards, cloth spine (joints split and fraying). *Provenance*: Willard Parker (signature). FIRST EDITION. Norman 171. — BELL. *Appendix to the papers on the nerves republished from the Royal Society's Transactions by Charles Bell; containing consultations and cases illustrative of the facts announced in these papers.* London: A. & R. Spottiswoode for Longman and others, 1827. 8° (212 x 135 mm). Folding engraved plate by James Basire after a drawing by the author. Contemporary half calf, gilt-ruled spine with red leather label, marbled boards (corners worn). *Provenance*: Steeven's Hospital Medical and Surgical Library (stamp). FIRST EDITION. Norman 172. — BELL. *The nervous system of the human body. Embracing the papers delivered to the Royal Society on the subject of nerves.* London: Thomas Davison for Longman and others, 1830. 4° (274 x 217 mm). 9 engraved plates by James Basire and J. Stewart after drawings by the author. (Some foxing to text.) Contemporary half calf, marbled boards (rebacked, corners worn). Second edition. Garrison-Morton 1258; *Heirs of Hippocrates* 1307; Waller 862; Norman 173.

(3)

Estimate: $2,000-3,000

ɔ284

BELL, Sir Charles (1774-1842). *Illustrations of the great operations of surgery, trepan, hernia, amputation, aneurism and lithotomy*. London: A. and R. Spottiswoode for Longman and others, n.d. [c. 1830]. 4° (274 x 374 mm). 20 plates, all but 3 with full or partial hand-coloring, etched by Thomas Landseer after the author's drawings (some leaves foxed and browned). Original quarter morocco, green cloth covered boards with gilt-lettered label on upper cover (corners and edges worn). FIRST EDITION, second issue. One of the most dramatic and most beautifully illustrated books in the entire literature of surgery. Garrison-Morton 5588; Waller 857; Wellcome II, p. 136; Norman 174. — BELL. *Essays on the anatomy of expression in painting.* London: C. Whittingham for Longman, Hurst, Rees, and Orme, 1806. 4° (313 x 252 mm). 6 engraved plates by John Stewart and stipple-engraved text illustrations after drawings by the author (minor foxing to some plates). Original blue boards, printed label on upper cover (some wear to joints). FIRST EDITION. Bell's artistic skills and his knowledge of physiology and anatomy were combined in this study of facial expression, which Charles Darwin wrote "laid the foundations of the subject as a branch of science." Garrison-Morton 6604.92; Wellcome II, 135; Norman 170.

(2)

Estimate: $2,500-3,500

ɔ284A

BELL, Sir Charles (1774-1842). *A system of dissections, explaining the anatomy of the human body, the manner of displaying the parts, and their variety in disease.* Edinburgh & London, 1799-1803. 2° (425 x 267 mm). 2 volumes in one. Contemporary half calf, gilt spine, marbled boards (edges and corners worn). *Provenance*: Dr. J. Wickham (bookplate and signature). FIRST EDITION OF VOL. II, second edition of Vol. I. Published in 7 parts and an appendix. Bell wrote this dissection manuel while still a student. Garrison-Morton 402; Norman 166. — BELL. *Engravings of the arteries, illustrating the second volume of anatomy of the human body, by J. Bell, surgeon; and serving as an introduction to the surgery of the arteries.* London: C. Whittingham for Longman and others, 1801. 4° (278 x 190 mm). 10 hand-colored engravings by Thomas Medland after drawings by the author. Original quarter cloth, blue boards, printed label on front cover (some stains to boards, joints and corners worn). *Provenance*: J. Graham (inscription on half-title); Surgeon Peebles (presentation inscription from Mrs. Graham on half-title). FIRST EDITION. Norman 167. — BELL. *Practical essays.* Edinburgh: Machlachlan, Stewart & Company, 1841. 8° (221 x 141 mm). Original brown blind-stamped cloth, gilt-lettered spine. *Provenance*: Presentation copy to William MacKenzie (1791-1868), opthalmic surgeon (bookplate and inscription "from the author"). PRESENTATION COPY OF FIRST EDITION. Norman 176. — BELL. *The hand, its mechanism and vital endowments as evincing design.* London: W. Pickering, 1833. 8° (224 x 140 mm). Text wood-engravings. Original blue cloth, printed spine label. FIRST EDITION. Thefourth in the series of Bridgewater treatises, funded by the Earl of Bridgewater to demonstrate the workings of God in creation. Garrison-Morton 411.1; Norman 175.

(4)

Estimate: $2,000-3,000

ɔ285

BELL, John (1763-1820). *The Principles of Surgery.* Edinburgh: for T. Cadell & W. Davies, T.N. Longman & O. Rees [Vol. I], London: Longman, Hurst, Rees and Orme, T. Cadell and W. Davies, [Vols. II-III], 1801-1808.

3 volumes bound in 4, 4° (304 x 246 mm). 87 engraved plates, (including 12 hand-colored) and numerous engraved illustrations in text (light browning). Contemporary blue boards, rebacked (light marginal wear); each volume in quarter morocco folding case.

FIRST EDITION. "John Bell, the Scottish anatomist and brother of Charles Bell, is regarded as a founder of surgical anatomy. He was first to ligate the gluteal artery and tied the common carotid and internal iliac. His illustrations were his own work, and were of a high standard" (Garrison-Morton 5581). Wellcome II, 135; Norman 177.

(4)

Estimate: $3,000-4,000

○286

BELLINI, Lorenzo (1643-1704). *De urinis et pulsibus*. Bologna: Heirs of Antonio Pisarrio, 1683.

4° (227 x 168 mm). 18th-century vellum, uncut. *Provenance*: Umberto Rengoni (contemporary ownership inscription on title-page); some 19th-century bibliographical notes on Bellini on front free endpaper; ex-Liechtenstein (bookplate).

FIRST EDITION. Bellini recognized the significance of urine as a diagnostic aid, and "insisted on its chemical analysis in pathalogical conditions" (Garrison-Morton). A pupil of Giovanni Borelli (see lot 313), he applied his teacher's mechanical philosophy to medical theory. In this work he began to develop his hydraulic iatromechanics theory, "in which he considered the blood as a physical fluid with simple mechanical and quantifiable properties" (Norman). Garrison-Morton 4162 and 762.1; NLM/Krivatsy 1069; Wellcome II, p. 140; Norman 178.

Estimate: $1,500-2,500

○287

BERGMAN, Torbern Olof (1735-1784). *Opuscula physica et chemica.* Volumes I-III edited by Bergman. Volumes IV-VI edited by Ernst Benjamin Gottlieb Hebenstreit. Holm, Uppsala and Abö: Magnus Swederus, 1779 (vol. I), Uppsala: Johan Edman, 1780-1783 (vols. II and III) and Leipzig: Johann Gottfried Müller, 1779-1790 (vols. IV-VI).

6 volumes, 8° (183 x 109 mm. vols. I-III) and (200 x 117 mm. vols. IV-VI). 15 engraved plates, some folding. Contemporary half calf, spines gilt with blue and yellow lettering pieces (vols. I-III) and the remainder in contemporary tree calf (spines worn). *Provenance*: And. Fr. Rösenborg (signature above a wax seal on front free endpaper).

FIRST EDITION of Bergman's collected scientific papers, including his essays on carbon dioxide, elective affinity, and chemical analysis of minerals and mineral waters. Partington III, pp. 179-199; Norman 192.

(6)

Estimate: $1,000-1,500

○288

BERGMAN, Torbern Olof (1735-1784). *Physical and chemical essays... to which are added notes and illustrations.* Translated and edited by Edmund Cullen. London: J. Murray, Edinburgh: Balfour & Co., W. Gordon, J. Dickson, Dublin: L. White, 1784.

2 volumes, 8° (203 x 125 mm). Engraved folding frontispiece and 2 folding tables (signatures π vol. I and A vol. II switched in this copy, U3 vol. I torn, affecting a few letters.) Contemporary gilt ruled calf, black morocco spine label, upper cover of vol. II detached, others cracked).

First edition in English. The essays include translations of Bergman's *De tubo feruminatoria* (1779), *De analysi aquarum* (1778), *De minerarum docimasia humida* (1780) and others. Partington III, pp. 179-199; Norman 193.

[*With:*]

BERGMAN, Torbern Olof. "Commentatio de acido aëreo" and "Disquisitio de attractionibus electivis." In: *Nova acta Regiae Societatis Scientiarum Upsaliensis,* II, pp. 108-160 and 161-250. Uppsala: Johannes Edman, 1775. Volume II, 4° (283 x 218 mm). (Uncut and unopened.) Later blue wrappers. First appearance of both accounts. Partington III pp. 179-199; Norman 190 and 191.

(3)

Estimate: $800-1,200

›289

BERINGER, Johann Batholomäus Adam (ca. 1667-1738). *Lithographiae Wirceburgensis, ducentis lapidum figuratorum, a potiori insectiformium, prodigiosis imaginibus exornatae specimen primum...* Würzburg: Mark Anton Engmann for Philipp Wilhelm Fuggart, 1726.

2° (320 x 195 mm). Engraved frontispiece by Johann Georg Puschner and 21 engraved plates (plate 21 torn, and repaired on verso, a few marginal tears). Modern wrappers.

FIRST EDITION. A famous hoax, in which two of Beringer's colleagues (J. Iganz Roderick and Johann Georg von Eckhart) manufactured the fossils and planted them around Mount Eibelstadt in the neighbourhood of Würzburg, where Beringer subsequently uncovered them. Nissen *ZBI* 330; Norman 195.

Estimate: $700-1,000

›290

BERKELEY, George (1685-1753). *A treatise concerning the principles of human knowledge.* Dublin: Aaron Rhames for Jeremy Pepyat, 1710.

4° (220 x 136 mm). Contemporary gilt-ruled mottled calf, red leather gilt spine label (central medallion replaced; spine starting; worn). *Provenance*: "Montgomery/Dublin" gilt-lettered on front cover.

FIRST EDITION. "Berkeley maintained that no existence is conceivable or possible which is not conscious spirit or the ideas of which such a spirit is conscious. This presupposes complete equation of subject and object: no object can exist without a Mind to conceive it." (PMM). Berkeley rejected Locke's ideas on matter, that the meaning and necessity of it was vital to an understanding of human thought. His works did not initially prompt much reaction. David Hume later founded his theory of the function of general terms on Berkeley's work. PMM 176; Norman 196.

Estimate: $7,000-10,000

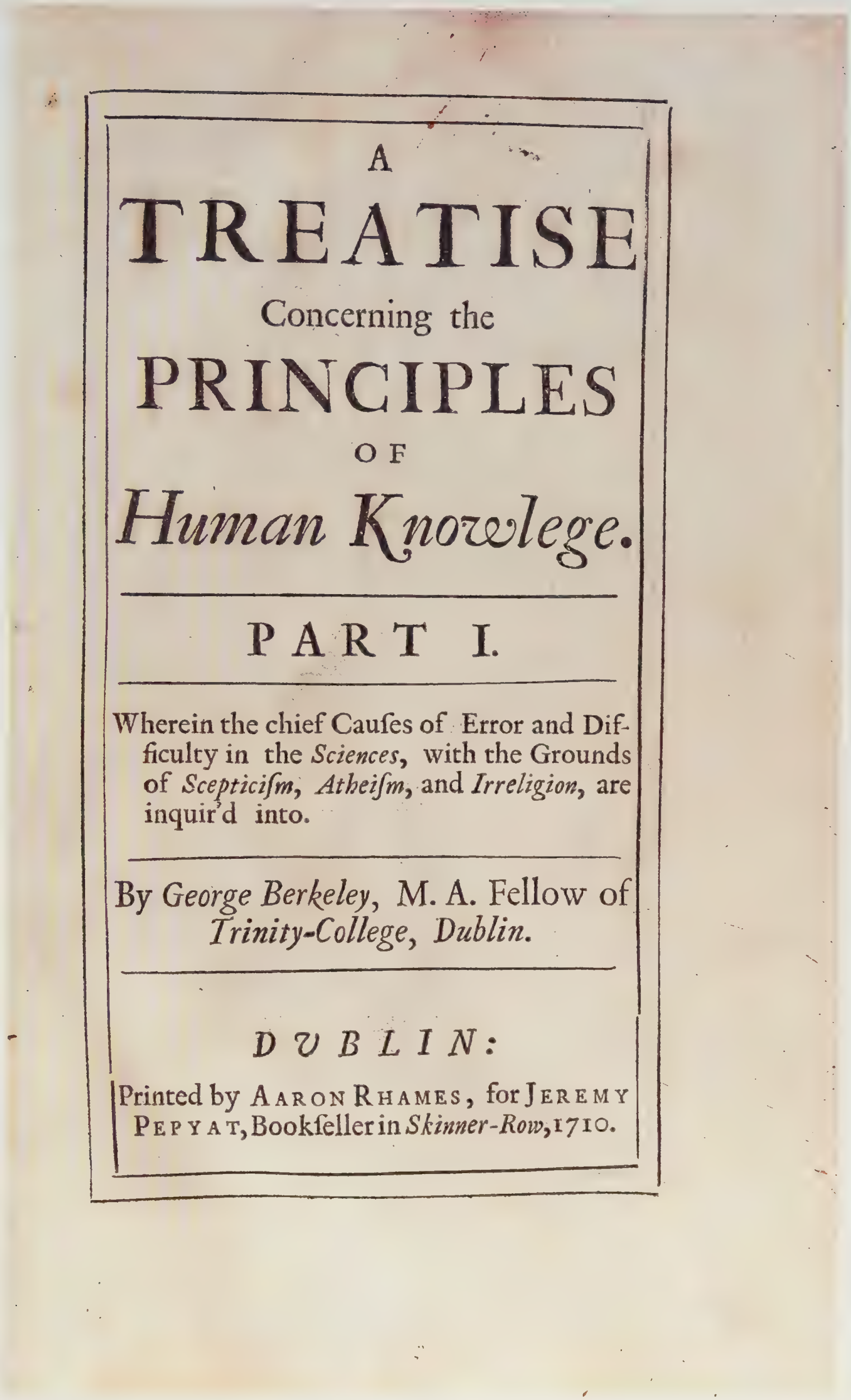
›291

BERNOULLI, Daniel (1700-1782). *Hydrodynamica, sive de viribus et motibus fluidorum commentarri.* Strassburg: Johann Heinrich Decker for Johann Reinhold Dulssecker, 1738.

4° (254 x 200 mm). Title printed in red and black. Engraved vignette on title-page, 12 folding engraved plates by Johann Martin Weis (1711-1751). (Title soiled, some minor light browning and pale spotting.) Modern sheep-backed boards. *Provenance*: library stamp on title-page verso (partially removed).

FIRST EDITION of Bernoulli's most famous work. His *Hydrodynamica*, a term he himself introduced, contains his formulae for calculating the velocity, duration and quantity of liquid issuing from an opening in a container. It also contains chapters on water oscillations, a theory of machinery (including an extensive treatment of the screw of Archimedes), and an important section which introduces his kinetic gas theory. The penultimate chapter states Bernoulli's famous equation, now used in hydraulics and fluid dynamics. Sotheran I, 350; Norman 215.

Estimate: $2,000-3,000



A TREATISE Concerning the PRINCIPLES OF *Human Knowlege.*

PART I.

Wherein the chief Cauſes of Error and Difficulty in the *Sciences*, with the Grounds of *Scepticiſm*, *Atheiſm*, and *Irreligion*, are inquir'd into.

By *George Berkeley*, M. A. Fellow of *Trinity-College*, *Dublin*.

DVBLIN:

Printed by AARON RHAMES, for JEREMY
PEPYAT, Bookſeller in *Skinner-Row*, 1710.

ɔ292

BERNOULLI, Jakob (1654-1705). *Ars conjectandi, opus posthumum. Accedit tractatus de seriebus infinitis, et epistola gallicè scripta de ludo pilae reticularis.* Edited by Nicolaus I Bernoulli (1687-1759). Basel: Thurneisen Brothers, 1713.

4° (221 x 170 mm). Woodcut device on title, folding sheet with woodcut diagrams, 2 folding letterpress tables, some woodcut diagrams in text, woodcut decorations and initials. (Some very minor light browning and pale spotting.) 18th-century tan paper boards (some edgewear), uncut; quarter morocco folding case. *Provenance*: A.G. Pickford (signature stamp on front pastedown).

FIRST EDITION OF THE "ESTABLISHMENT OF THE FUNDAMENTAL PRINCIPLES OF THE CALCULUS OF PROBABILITIES" (Grolier/Horblit) . Bernoulli's posthumous treatise was edited by his nephew and is considered the first significant book on probability theory. The title refers to *conjectandi*, or "casting," as in the casting of dice. The *Ars conjectandi* "was the first systematic attempt to place the theory of probability on a firm basis and is still the foundation of much modern practice in all fields where probability is concerned—insurance, statistics and mathematical heredity tables" (PMM). The work is divided into four parts: the first a commentary on Huygens' *De ratiociniis in aleae ludo* (1657), the second a treatise on permutations and combinations (the former Bernoulli's own term), the third an application of the theory of combination to various games of chance, and the final, and most important, part which contains Bernoulli's philosophical thoughts on probability—as a measurable degree of certainty, necessity and chance, of moral versus mathematical expectation, and of *a priori* and *a posteriori* probablility. It also contains his theorem, an application of probability to statistics. A FINE UNCUT COPY IN CONTEMPORARY BOARDS. Dibner *Heralds of Science* 110; Grolier/Horblit 12; PMM 179; Norman 216.

Estimate: $7,000-9,000

ɔ293

BERNOULLI, Johann I (1667-1748). *Opera omnia.* Edited by Gabriel Cramer (1704-1752). Lausanne & Geneva: Marci-Michaelis Bousquet, 1742.

4 volumes, 4° (245 x 195 mm). Titles printed in red and black; half-title in vol. II only. Engraved title-page vignettes, fine engraved portraits of the author and Frederick III of Prussia by G.F. Schmidt in vol. I, 91 folding engraved plates. Contemporary calf gilt (one cover with surface worn, some wear at edges). *Provenance*: W.T.T. (bookplate in 3 volumes).

First complete edition of the collected works. Johann Bernoulli I "did much to spread the calculus in Europe. His range included physics, chemistry, and astronomy in addition to mathematics. On the applied side ... [Bernoulli] contributed extensively to optics, wrote on the theory of the tides and the mathematical theory of ship sails, and enunciated the principle of virtual displacements in mechanics" (Bell, *Men of Mathematics* pp. 159-160). A CLEAN SET. Norman 217.

(4)

Estimate: $1,000-1,500

JACOBI BERNOULLI,
Profeſſ. Baſil. & utriuſque Societ. Reg. Scientiar.
Gall. & Pruſſ. Sodal.
MATHEMATICI CELEBERRIMI,

ARS CONJECTANDI,

OPUS POSTHUMUM.

Accedit

TRACTATUS
DE SERIEBUS INFINITIS,

Et EPISTOLA Gallicè ſcripta

DE LUDO PILÆ
RETICULARIS.

BASILEÆ,
Impenſis THURNISIORUM, Fratrum.
cIↄ Iↄcc xiii.

›294

BERTHOLLET, Claude Louis (1748-1822). *Essai de statique chimique.* Paris: Firmin Didot, 1803. 2 volumes, 8° (197 x 122 mm). (Lacking half-title in Vol. 2, some foxing to titles and at end of each volume, pale marginal dampstaining at end of second volume.) Contemporary mottled calf gilt, covers with central gilt coat-of-arms of Louis XVIII, smooth spines gilt (first volume rebacked preserving original spine, one cover charred slightly, one joint starting). *Provenance*: Bound for Louis XVIII of France (1755-1824). FIRST EDITION. Duveen, p. 75; Norman 222. — Another copy, complete with half-titles. 2 volumes, 8° (202 x 125 mm). Contemporary sheep-backed boards (extremities rubbed). *Provenance*: Bibliothèque Cantonale (ink stamps on titles). FIRST EDITION. Norman 221. — *An Essay on Chemical Statics.* London: W. Flint for J. Mawman, 1804. 2 volumes, 8° (209 x 130 mm). 19th-century diced calf gilt. FIRST EDITION IN ENGLISH. Norman 223.

Trained as a physician, the French chemist Berthollet attempted to provide a proper basis for chemistry, so that its experimental results could be viewed in the light of theoretical first principles. In his attempt to provide chemistry with an adequate theoretical foundation, Berthollet recognized the importance of the theory of affinity. According to the *Essai*, there were two main types of force in nature: gravitation, which accounted for astronomical phenomena, and chemical affinity. He proved that Chemical affinity was relative, varying with the physical conditions accompanying a chemical experiment: quantitiy, temperature, solubility, pressure, and physical state. Berthollet "introduced the highly important concept of 'chemical mass'—relative affinity combined with the mass of reactants in a chemical combination—to give the total force with which a given quantitity of a substance reacted with another" (Norman 221).

(6)

Estimate: $1,000-1,500

›295

BIDLOO, Govard (1649-1713). *Anatomia humani corporis, centum & quinque tabulis, per artificiossis. G. de Lairesse ad vivum delineatis.* Amsterdam: for the widow of Joannes van Someren, the heirs of Joannes van Dyk, Henry Boom and widow of Theodore Boom, 1685.

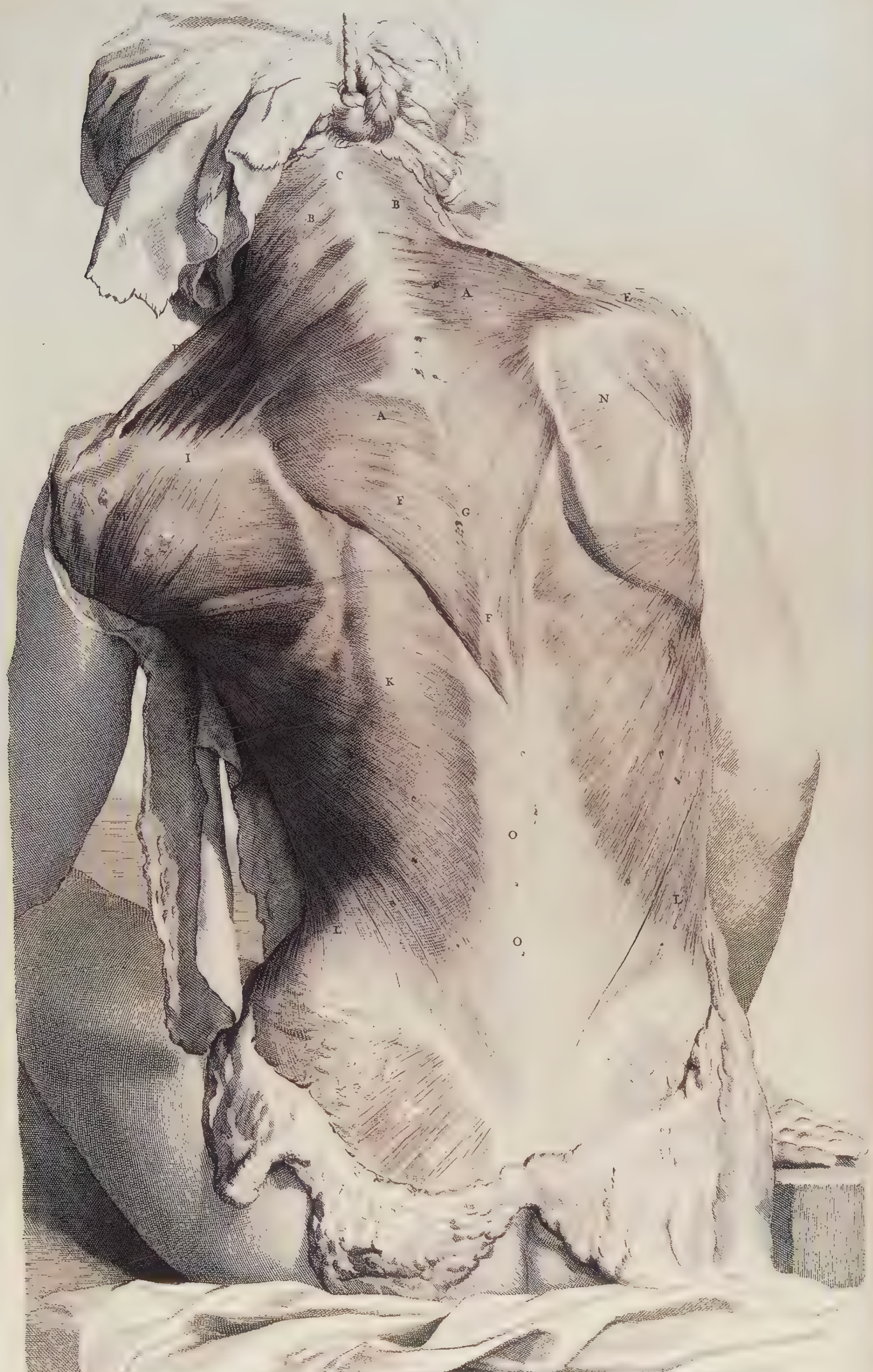
2° (517 x 351 mm). Additional engraved title, engraved portrait by Abraham Bloteling after Gérard de Lairesse, 105 numbered engraved plates after Lairesse, probably by Bloteling, numbers 10 and 23 folding, printer's woodcut device on title, woodcut initials and tailpieces. (Marginal soiling to engraved title, folding plate 10 with a 180mm tear repaired, plate 23 with short tear at fold not touching image.) Contemporary calf (rebacked, covers restored). *Provenance*: Dr. Cordes, Geneva (inkstamp on title).

FIRST EDITION of this striking anatomical atlas, whose plates after drawings by Gérard de Lairesse (1640-1711) display the emotional and slightly morbid tendencies of the Baroque. Lairesse, a painter, draughtsman and printmaker from Liège, contributed to the Gallicization of Dutch art in the latter half of the 17th century. His illustrations for Bidloo, who later served as physician to William of Orange, eerily juxtapose meticulously realistic images of flayed corpses or body parts with objects of everyday life. "For Lairesse, [these illustrations] were an occasion for an artistic meditation on anatomy... His illustrations brought the qualities of Dutch still-life painting into anatomical illustration, and gave a new, darker spiritual expression to the significance of the art of dissection." Probably engraved by Abraham Bloteling, inventor of the mezzotint rocker, the plates were reissued in 1698 by the surgeon William Cowper with English text, without Bidloo's permission (see lot 389).

Choulant-Frank, pp. 251-252; Garrison-Morton 385; *Heirs of Hippocrates* 667; NLM/Krivatsy 1238; Wellcome II, p. 165; Norman 231.

Estimate: $6,000-8,000

T 27



296

BLACK, Joseph (1728-1799). “Experiments upon magnesia alba, quicklime, and some other alcaline substances.” In: *Essays and Observations, Physical and Literary, read before a Society in Edinburgh.* Volume II, pp. 157-225. Edinburgh: G. Hamilton and J. Balfour, 1756.

8° (205 x 125 mm). Contemporary calf, gilt, red leather spine label (light wear to spine ends and corners).

FIRST APPEARANCE. “Black demonstrated that an aeriform fluid that he called ‘fixed air’ (carbon dioxide gas) was a quantitative constitutent of various alkaline substances such as *magnesia alba* (magnesium carbonate), potash, lime, and soda” (Norman). Partington III, pp. 130-143; Norman 239.

Estimate: $600-800

297

BLAES, Gerard (ca. 1626 - ca. 1692). *Anatome animalium.* Amsterdam: widow of Johannes van Someren, Hendrik and widow of Dirk Boom, 1681.

4° (256 x 211 mm). Engraved frontispiece by Jan Luyken, 65 full-page engravings. (Some minor light browning and pale foxing.) Contemporary vellum.

FIRST EDITION of “the first comprehensive manual of comparative anatomy based on the original and literary researches of a working anatomist” (Cole). Cole *Comparative Anatomy*, pp. 150-55; Garrison-Morton 296 (“Blaes anticipated Cowper in finding the Cowper’s glands, which he illustrated in his plate of the genitalia and os penis of the rat”); Nissen *ZBI* 381; NLM/Krivatsy 1339; Wellcome II, p. 179; Norman 241.

Estimate: $800-1,200

298

BLANE, Gilbert (1749-1834). *Observations on the diseases incident to Seamen.* London: Joseph Cooper, 1785.

8° (208 x 133 mm). (Inner margin on title affixed to endpaper slightly). 3 folding letterpress tables. Modern half calf. *Provenance*: William Robertson (1721-1793), historian and principal of the University of Edinburgh from 1762 to 1792, who wrote several histories, including a history of America published in 1777 (presentation inscription from the author on the title verso: “To the Revd. Dr. William Robertson Principal of the University of Edinburgh as a testimony of the Author’s great Respect & sincere Regard”).

PRESENTATION COPY OF THE FIRST EDITION. Blane’s second treatise on naval medicine which incorporates much of his earlier work on preserving the health of seamen. Blane was a strong proponent of Lind’s views on scurvy, and as physician to the British Fleet in the West Indies effectively introduced improvements in living conditions among seamen. Garrison-Morton 2158 (“With Lind he stands predominant in the history of naval medicine”); Wellcome II, p. 178; Norman 242.

Estimate: $1,000-1,500

299

BLANE, Gilbert (1749-1834). *Observations on the diseases of Seamen.* London: John Cooper, 1789.

8° (210 x 129 mm). 3 folding letterpress tables. Contemporary English tree calf, spine gilt with red morocco lettering piece (joints and extremities a little rubbed). *Provenance*: Lord Kinnaird (presentation inscription from the author on the title-page: “To the honble. Lord Kinnaird from the Author”; and bookplate). Second edition of Blane’s treatise on naval medicine. Norman 243.

Estimate: $800-1,200

300

BLUMENBACH, Johann Friedrich (1752-1840). *De generis humani varietate nativa liber.* Göttingen: Widow of A. Vandenhoeck, 1776.

8° (200 x 119 mm). 2 engraved plates. (Some browning and spotting.) Contemporary calf, spine gilt. *Provenance*: early cropped inscription on title-page; Giovanni Fabroni (1752-1822), best known for two memoirs on galvanic phenomena (ink stamp on front free endpaper, and a fragment of a letter to Giovanni Fabroni laid in).

FIRST EDITION, second issue (title a cancel dated 1776). Blumenbach was the founder of Anthropology. "He was preceded by Tyson and Linné who had prepared the ground for his studies by relating man to the order of the primates. Linné had distinguished four races of man chiefly by the color of their skin. From these premises Blumenbach was able to develop the thesis that all living races are varieties of a single species, *homo sapiens,* and that their differences were small compared with those between man and the nearest animal; 'innumerable varieties of mankind run into each other by insensible degrees.' It is not surprising therefore that Blumenbach was opposed to the practice of slavery and the then current belief in the inherent savagery of the colored races" (PMM). Garrison-Morton 156 (first issue); PMM 219 (first issue); Norman 250. — [*Bound with*:] HUNTER, John (d. 1809). *Disputatio inauguralis, quaedam de hominum varietatibus, et harum causis, exponens.* Edinburgh: Balfour and Smellie, 1775. 8°. *Provenance*: Mr. Shiels (presentation inscription by the author on title verso). PRESENTATION COPY OF THE FIRST EDITION. Norman 1123.

Estimate: $800-1,200

301

BLUMENBACH, Johann Friedrich (1752-1840). *Handbuch der vergleichenden Anatomie.* Göttingen: Dieterich, 1805. 8° (215 x 130 mm. uncut). Engraved title and 8 engraved plates. Contemporary blue wrappers. *Provenance:* Göran Wahlenberg (signature on front pastedown); Uppsala University Library (withdrawal stamp on front pastedown). FIRST EDITION. "Blumenbach was the first to show the value of comparative anatomy in the study of anthropology; his classic text went through many editions" (Garrison-Morton). Garrsion-Morton 312; Norman 252. — BLUMENBACH. *Introductio in historiam medicinae litterariam.* Göttingen: Dieterich, 1786. 8° (217 x 133 mm). Engraved title vignette. Modern wrappers, uncut. FIRST EDITION. "An annotated subject bibliography, arranged chronologically from antiquity to Blumenbach's time" (Garrison-Morton 6749). Wellcome II, p. 183; Norman 251. (2)

Estimate: $800-1,200

302

BOERHAAVE, Hermann (1668-1738). *Institutiones medicae, in usus annuae exercitations domesticos.* Leiden: Johannes vander Linden, 1708.

12° (155 x 97 mm). (Light browning and staining.) Contemporary vellum (some staining to upper cover).

Provenance: P. Martin, Leiden 1708 (signature on title page); Edward Finch (18th-century armorial bookplate).

FIRST EDITION, of Boerhaave's famous textbook, published in Great Britain, France, Germany, Italy and other countries, in authorized and unauthorised editions. Boerhaave's first book and the foundation for his European reputation. Garrison-Morton 581; Grolier *Medicine* 39; *Heirs of Hippocrates* 749; Lindeboom 40; NLM/Blake, p. 53; Waller 1200; Norman 255.

Estimate: $1,200-1,800

5303

BOERHAAVE, Hermann (1668-1738). *Aphorismi de Cognoscendis et curandis morbis.* Leiden: Johannes vander Linden, 1709.

12° (154 x 95 mm). (Light dampstaining to upper right corner, with minor loose blank corner of title page.) Contemporary calf (rebacked, some staining to upper cover). *Provenance:* Johannis Foote (bookplate).

FIRST EDITION. This and the *Institutiones medicae* are largely responsible for Boerhaave's European reputation. Written during his time as at the Faculty of Medicine at Leiden, the above "...contains 1479 aphorisms which review contemporary knowledge and the personal experience of the author in a concise and dogmatic manner. The title *Aphorisms* suggests an intentional, though far from imitative connection with Hippocrates, whom the author had exalted in his academic address of 1701 as the ideal physician for all the ages" (Lindeboom, p. 75). Garrison-Morton 2199; Lindeboom 143; Wellcome II, p. 189; Norman 256.

Estimate: $1,200-1,800

5304

BOERHAAVE, Hermann (1668-1734). *Institutiones et experimenta chemiae.* Paris [Leiden?], 1724.

8° (156 x 95 mm). Engraved folding plate and one engraved illustration in text. Contemporary vellum, spine ink lettered.

Although bearing a Paris imprint, this edition was probably published in Leiden. "This spurious edition of Boerhaave's chemical notes so incensed Boerhaave that on 9 October 1726 he published a warning in the *Leydische Courant* against booksellers selling such works, and on 25 October asked the academic Senate for help in protecting him from any further abuses at the hands of unscrupulous printers and booksellers. He also later countered the work with an authorized chemical textbook, the *Elementa chemicae* (1732), which remained the authoritative chemical manual for many years. All copies of the *Elementa* carried Boerhaave's autograph signature, attesting to the work's authenticity and protecting against pirated editions" (Norman). Duveen pp. 83-84; Lindeboom 444; Norman 257.

Estimate: $800-1,200

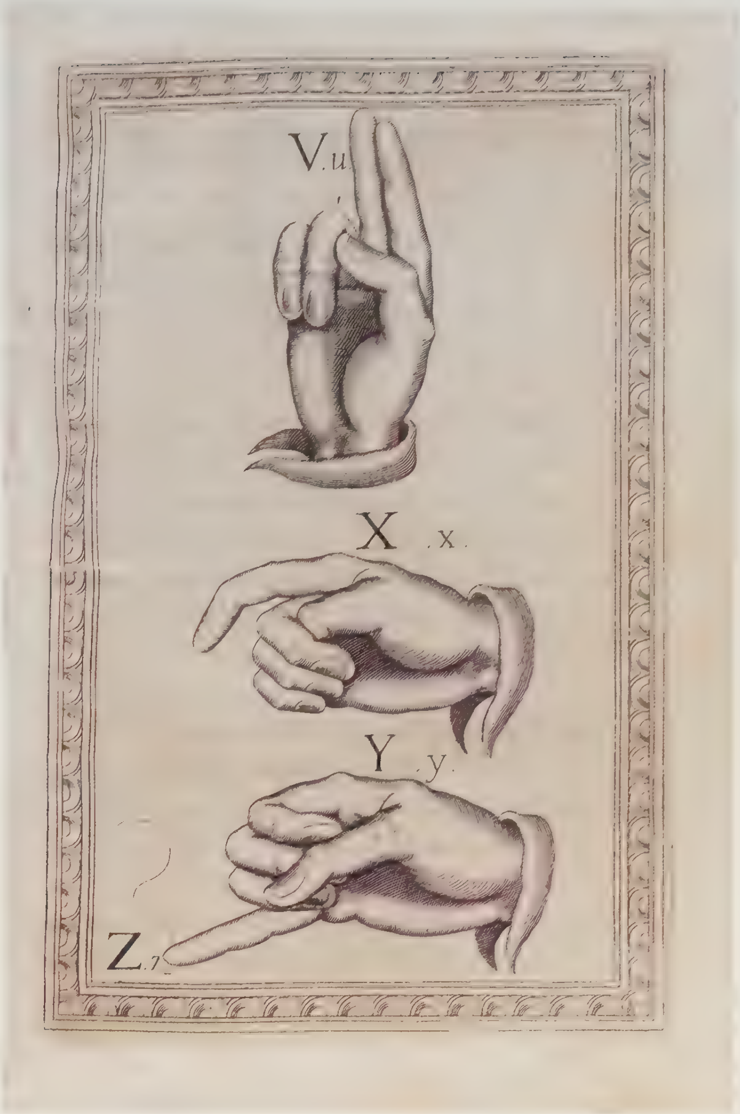
5305

BONDT, Jacob de (1592-1631). *De medicina indorum libri IV.* Leiden: Francis Hack, 1642.

12° (125 x 74 mm). Engraved title by Cornelis v. Dalen. Contemporary vellum (broken). *Provenance:* Bibliotheaca Thebesiana (contemporary bookplate).

FIRST EDITION OF THE "FIRST DUTCH WORK ON TROPICAL MEDICINE and the first modern description of beri-beri and cholera" (Garrison-Morton). Bondt, who spend four years with the Dutch East India Company, was probably the first to regard tropical medicine as an independent branch of medical science. Garrison-Morton 2263; *Heirs of Hippocrates* 463; NLM/Krivatsy 1498; Waller 1297; Wellcome II, p. 201; Norman 261.

Estimate: $800-1,200



306

BONET, Juan Pablo (1579-1633). *Reduction de la letra, y arte para enseñar a ablar los mudos.* Madrid: Francisco Abarca de Angulo, 1620.

4° (188 x 132 mm). Collation: ¶-¶¶^{4} ¶1^4 A-Z^4 Aa-Qq^4 X^2. 169 leaves (of 170, without X2 ?blank). Engraved title by Diego de Astor dated 1619, 8 engraved plates showing the alphabet in sign language, folding engraved table of Greek ligatures and abbreviations. (Title laid down and with lower and fore-margins extended. 2 small holes to ¶1 affecting 1 letter. 3 plates with marginal repairs and small marginal tears, dampstaining to first 50 leaves, occasional minor staining elsewhere.) 19th-century tree calf, edges stained yellow. *Provenance*: effaced inscription dated 1676; Stanislao Rodriguez (book label).

RARE FIRST EDITION of the first book on the teaching of language and literacy to deaf-mutes. Bonet advocated the necessity of reducing language to its phonetic units in order to teach the deaf to speak, and he developed his own system of finger-spelling, illustrated in the engraved plates. His ideas probably derived from the teachings of the Benedictine monk Pedro Ponce de Léon (1510-1584), a famous teacher of the deaf of whom no written works survive. Garrison-Morton 3345; NLM/Krivatsy 1501; Norman 262.

Estimate: $2.500-3.500

307

BONET, Théophile (1620-1689). *Sepulchretum sive anatomia practica.* Geneva: for Leonardi Chouët, 1679.

2 volumes, 2° (354 x 212 mm). Title printed in red and black in Vol. 1 (lacking title in Vol. 2). (Some marginal dampstaining, occasional browning or spotting. Contemporary calf, spine gilt (joints cracked, worn, later spine labels). *Provenance*: George Bell (early signatures deleted in each volume); Myddelton (engraved armorial bookplate in each volume); H. Hinckley (signature in second volume and his ink deletion of owner's name on previous bookplate).

FIRST EDITION of Bonet's "greatest work and ... the foundation upon which Morgagni based his *De sedibus*. The first edition appeared after he had been in practice over thirty years; it contains references to more than 400 writers and is based on some 3,000 autopsies. He includes diseases from ancient to contemporary times with emphasis on the sixteenth and seventeenth centuries" (*Heirs of Hippocrates*). Garrison-Morton 2274; *Heirs of Hippocrates* 528; NLM/Krivatsy 1510 Osler 2077; Waller 1278; Wellcome II, p. 198; Norman 263.

(2)

Estimate: $600-800

308

BONIFACIO, Giovanni (1547-1635). *L'arte de' cenni, con la quale, formandosi favella visibile, si tratta della muta eloquenza.* Vicenza: F. Grossi, 1616.

4° (206 x 151 mm). (Minor marginal worming at beginning, blank corner of title page repaired.) Contemporary vellum.

FIRST EDITION. "Bonifacio's sign-language for the deaf and dumb employed almost every part of the body for conversational purposes" (Garrison-Morton). Garrison-Morton 3344; NLM/Krivatsy 1516; Norman 264.

Estimate: $1,000-1,500

309

BONNET, Charles (1720-1793). *Considérations sur les corps organisés.* Amsterdam: M.M. Ray, 1762.

8° (201 x 123 mm). Contemporary calf, spines gilt (light rubbing to extremities and spine).

Provenance: Charles Bonnet (with his signature on both title pages and extensive annotations).

FIRST EDITION, THE AUTHOR'S OWN COPY, WITH HIS EXTENSIVE ANNOTATIONS FOR A SECOND EDITION, and apparently never published. According to manuscript notes on the flyleaves of both volumes, Bonnet started his revisions on 23 February 1778 and completed them on 28 August. A single news broadsheet entitled "Suite des nouvelles d'Amsterdam du 30. Septembre 1763" describing Bonnet's submission of the *Considerations* to the Prussian Royal Academy of Science, is tipped in at end of volume II. Bonnet's theory of generation offered the best synthesis of 18th century ideas of development. Garrison-Morton 472; *Heirs of Hippocrates* 947; Wellcome II, p. 200; Norman 264A.

(2)

Estimate: $3,000-4,000

○310

BONOMO, Giovan Cosimo (1666-1696) [and Giacinto CESTONI (1637-1718)]. *Osservazioni intorno a' pellicelli del corpo umano.* Florence: Piero Matini, 1687.

4° (229 x 173 mm). Collation: A^{10}. 10 leaves (A10 blank). One engraved plate showing 15 figures of scabies mites. Woodcut device on title, woodcut initial, typographic headpiece ornament (Single small wormhole through text, engraved plate cropped at bottom.) 17th-century mottled calf (refinished).

FIRST EDITION OF THE FIRST CLINICAL AND EXPERIMENTAL PROOF OF A TRANSMISSIBLE INFECTION BY A MICROPARASITE. A student of Francesco Redi, Bonomo was inspired by his teacher's research disproving the prevailing theory of the spontaneous generation of insects to investigate the etiology of scabies. Aided by the apothecary Giacinto Cestoni, a fellow disciple of Redi who had specialized in the study of the generation of insects, Bonomo demonstrated that scabies is caused by mites, previously thought to be a consequence rather than a cause of the disease. The two scientists' investigation, described in this pamphlet, which is couched in the form of a letter to Redi, was conducted along the lines of the new experimental approach to science that gained legitimacy in Europe during the latter half of the 17th century: "With the aid of a microscope, it was demonstrated that this arachnid reproduces by means of eggs and that it possesses an oral apparatus with which it penetrates the skin. Hence, Bonomo resolved to adopt local therapy aimed at killing the mites, instead of the general therapy that had previously been used. The results thus obtained enabled him to conclude that the mites were the cause of the disease. It followed that scabies is transmitted by the mites from a victim to a healthy person" (DSB). This conclusion was of great import, for it "gave researchers grounds to think in terms of objective, exogenous pathogenic agents as the cause of disease" (Garrison-Morton). RARE.

Garrison-Morton 4012; *Heirs of Hippocrates* 716; NLM/Krivatsy 1522; Waller 1288; Wellcome II, p. 201; Norman 265.

Estimate: $1,500-2,000

○311

BOREL, Pierre (1620-1689). *De vero telescopii inventore, cum brevi omnium conspiciliorum historia – Observationum micrococospicarum centuria.* The Hague: Adriaan Vlacq, 1655-56.

Three parts in one volume, 4° (191 x 148 mm). 2 fine engraved portraits of Zacharias Janssen and Hans Lipperhey by J. van Meurs after Berckman (the second with caption shaved), one folding full-page and one half-page copper-engravings, several woodcuts in text, one showing a telescope. (Small piece torn away from upper margin of G3 slightly affecting headline and pagination.) Contemporary mottled calf, spine gilt (minor wear to spine ends).

A FINE COPY OF THE VERY RARE FIRST EDITION of Pierre Borel's important work which contains the first full account of the invention of the telescope and microscope. It also contains Christian Huygens' preliminary announcement (in anagram form) of his discovery of the rings of Saturn (and of the Saturnian moon, Titan) three years before it was announced in *Systema saturnium* (see lot 542).

Borel, physician to the King of France, was an active collector of rarities, plants, antiquities, and minerals, as well as manuscripts and books of the Hermetic philosophers or chemists. In this work he presents evidence to show that Zacharias Janssen and Hans Lipperhey, both spectacle-makers in Middelburg, Holland, were the first inventors of the telescope, in that order. He gives a detailed history of the telescope from the earliest times up to Galileo, Descartes, Metius and numerous others.

Borel was the first to apply microscopy to medicine, and the second part of the book is devoted to microscopic observations. It also gives a full account of the construction of telescopes and microscopes and discusses ways to grind lenses for both these instruments. A VERY FINE COPY. Garrison-Morton 261; NLM/Krivatsy 1569; Wellcome II, p. 204; Norman 268.

Estimate: $3,500-4,500

312

BOREL, Pierre (1620-1689). *Historiarum, et observationum medicophysicarum, centuriae IV.* - Isaac CATTIER. *Observationes medicinales rarae.* - Pierre BOREL. *Vitae Renati Cartesii.* Paris: Jean Billaine and Veuve Mathurin Dupuis, 1656.

8/so (179 x 104 mm). Woodcut illustration in text. (Title-page loose, a few minor marginal stains.) Contemporary vellum. *Provenance.* A. Berckhuys (early signature on title-page verso); early inscription on rear endpaper.

Second edition of the first work to apply microscopy to medicine. The first edition was published in 1653; this edition contains a work by the French physician Isaac Cattier, entitled *Observationes medicae rariores* (first published 1653) and Borel's life of Descartes. See Garrison-Morton 260 (1653 first edition); NLM/Krivatsy 1571; Wellcome II, p. 204; Norman 269.

Estimate: $700-900

313

BORELLI, Giovanni Alfonso (1608-1679). *De motu animalium.* Rome: Angelo Bernabo, 1680-81.

2 volumes, 4° (212 x 151 mm). 18 folding engraved plates (a few with some light dampstaining, and one with a small stain in vol. 1). (Signatures deleted in ink and with small slips pasted over on title-pages, some occasional minor browning or pale spotting). Contemporary vellum (short break to vellum on rear joint of first volume, minor staining on two covers).

RARE FIRST EDITION OF BORELLI'S CLASSIC WORK IN THEORETICAL ZOOLOGY. Trained as a mathematician and physicist, Borelli was one of the founders of biomechanics, in which the body was conceived of as a machine whose movements and phenomena could be explained by the laws of physics. In this important treatise Borelli presents the application of mechanics to the motion of the limbs of animals based largely on Galileo's mechanics. The first portion of this work deals primarily with external motions, produced by the interaction of bones and muscle.

The second volume is devoted to internal motions, including circulation, respiration, secretion and nervous activity. "Borelli originated the neurogenic theory of the heart's action and first suggested that the circulation resembled a simple hydraulic system. He was the first to insist that the heart beat was a simple muscular contraction" (Garrison-Morton).

Cushing B499; Dibner *Heralds of Science* 190; Garrison-Morton 762; Grolier/Horblit 13; *Heirs of Hippocrates* 315; McGill/Wood 249; Nissen *ZBI* 465; NLM/Krivatsy 1578; Osler 2087; Norman 270.

Estimate: $4,000-6,000

314

BOSCOVICH, Ruggero Giuseppe (1711-1787). [Collection of offprints from the *Giornale de letterati*, Rome 1747-1748]. Six offprints bound in one volume, 4° (205 x 150 mm). (Occasional light foxing). Contemporary vellum over pasteboard, marbled edges.

CONTENTS:

1) *Dialogi sull' aurora boreale.* [1748]. Collation: A-F^4. 48 leaves. Half-title. Woodcut tail-pieces

TABVLA DECIMASEPTIMA.
Fig. I.
TABVLA DECIMATERTIA
Fig. 1.

313

and initial. (Marginal tear to E2.) Whyte pp. 37-38 and 216; Norman 274.

2) *Parte prima [- secunda] delle riflessioni sul metodo di alzare un infinitinomio a qualunque potenza.* 1747-1748. Collation: A-B^4; ^{2}A-B^4. 16 leaves. Drop-titles. Two manuscript double-page mathematical tables in a neat contemporary Italian hand bound in at end (one later pencilled correction), followed by a blank leaf. Whyte p. 215; Norman 273.

3) *Tre osservazioni dell'eclisse del sole seguito in questo mese.* 1748. Collation: A^8. 8 leaves, A8 blank. Drop-title, woodcut tailpiece. Whyte, p. 216; Norman 276.

4) *Soluzione geometrica di un problema spettante l'ora delle alte, e basse Maree, e suo confronto con una soluzione algebraica del medesimo data del Sig. Bernoulli.* [1748]. A-B^4. 8 leaves. Drop-title, woodcut diagram. Whyte p. 216; Norman 275.

5) *Dissertazione della tenuità della luce solare.* [1747]. Collation: A^2 B-D^4. 14 leaves, D4 blank. Drop-title. Whyte p. 216; Norman 272.

6) *Dimostrazione di un passo spettante all'angolo massimo, e minimo dell'iride, cavato dalla prop. I. della 2. parte del lib. I dell'Ottica del Newtono; con alcune riflessioni sullo stesso capitolo.* [1747]. Collation: A-D^4. 16 leaves, D4 blank. Drop-title, woodcut text diagram. Whyte pp. 215-216; Norman 271.

A fine contemporary *Sammelband* of rare offprints of articles, all FIRST SEPARATE EDITIONS, on astronomy, mathematics, and optics by the last great polymath. Included here are a mathematical essay, a description of the solar eclipse of 25 July 1748, a discussion of the aurora borealis, a paper on a geometrical method of determining the hours of high and low tide, and two papers on optics, the first on solar light, and the second an analysis of Newton's discussion in the *Opticks* (1704) of the properties of light that produce the colors of the rainbow.

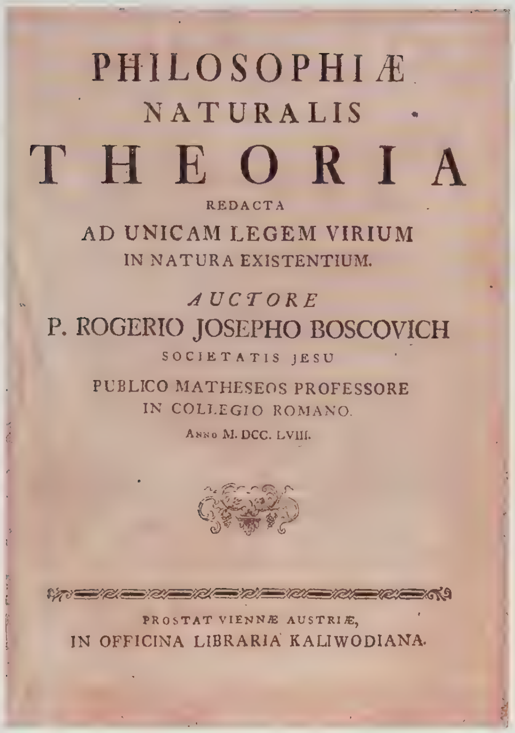
Estimate: $1,000-1,500

ɔ315

BOSCOVICH, Ruggero Giuseppe (1711-1787). *Philosophiae naturalis theoria redacta ad unicam legem virium in natura existentium.* Vienna: in officina Libreria Kaliwodiana, 1758.

4° (221 x 161 mm). Collation: a-c^4 d^2 A-C^4 Aa-Rr^4 Ss^2 ^{2}a-^{2}b^4 χ^1. 185 leaves. "Adnotanda, et corrigenda" leaf from the 1759 edition bound in (with recto and verso reversed) between ^{2}b4 and χ1. 4 folding numbered engraved plates, woodcut head- and tailpieces and initials. (Small mark from removed inscription on title, quire 2b supplied from another, shorter copy, very slight uniform discoloration intrinsic to the paper.) 19th-century olive-stained calf, covers panelled in blind with gold tooled crowned monogram "CAR" at center, smooth spine gilt panelled in an 18th-century style, red morocco lettering-piece, marbled edges (slightly rubbed, some worming along joints, spine a bit faded); modern folding morocco case.

VERY RARE FIRST EDITION OF A FUNDAMENTAL WORK IN THE HISTORY OF SCIENTIFIC THOUGHT, A PRECURSOR OF MODERN ATOMIC THEORY. The son of a cultured Dubrovnik merchant family, Boscovich (or Boskovic) became a Jesuit, and, like many intellectual Dalmatians of the period, emigrated to Italy. He spent most of his career there, as professor of mathematics at Rome and Pavia and as director of the observatory at Milan, teaching also in Paris and Vienna, and publishing widely in an astonishing variety of scientific disciplines. "Boskovic was perhaps the last great polymath to figure in an important way in the history of science, and his career was in consequence something of an anachronism and presents something of an enigma. He stands between Newton and Leibniz at one extreme and Faraday and field theory at the other... A somewhat isolated figure, he belonged to no definite eighteenth-century tradition... [H]e published in the mode of an earlier time. He wrote treatises on whole sciences, and at certain periods in his life composed several such works in the course of a year. Nevertheless, his reputation has been rather that of a forerunner than a survival..." (DSB).



PHILOSOPHIÆ
NATURALIS
THEORIA
REDACTA
AD UNICAM LEGEM VIRIUM
IN NATURA EXISTENTIUM.
AUCTORE
P. ROGERIO JOSEPHO BOSCOVICH
SOCIETATIS JESU
PUBLICO MATHESEOS PROFESSORE
IN COLLEGIO ROMANO.
Anno M. DCC. LVIII.

PROSTAT VIENNÆ AUSTRIÆ,
IN OFFICINA LIBRARIA KALIWODIANA.

315

The *Theory of natural philosophy* was Boscovich's masterpiece. In it he expounds a theory of matter as a series of discontinuous indivisible points (*puncta*), interacting in pairs, with each point surrounded by a field of force alternately attractive and repulsive (or positive and negative) depending on the distance between them. Boscovich's "point-atoms" were "distinguished from geometrical points only by their possession of inertia and their mutual interaction. Extended matter then becomes the dynamic configuration of a finite number of centers of interaction" (DSB). This universal law of forces, which evolved from Boscovich's attempt to build a comprehensive physics based on but going beyond the ideas of Newton and Leibniz, anticipated many features of modern atomic and nuclear physics. Its importance was immediately recognized, especially in Britain, but Boscovich's theory was generally regarded as pure speculation. Although Boscovich's view of matter was "akin to that of recent physics, in that it is relational, structural and kinematic... it is not certain how far the *Theoria* influenced the development of atomic theory. It was widely studied, and Michael Faraday, Sir William Hamilton, James Clerk Maxwell, and Lord Kelvin (to mention only English scientists) stressed the theoretical advantage of the Boscovichian atom over rigid atoms. In any case, Boscovich's work marked an important stage in the history of our ideas about the universe, and his system will remain the paradigm of the theory of point particles" (*Encyclopedia of Philosophy*, ed. P. Edwards, New York 1972, I, pp. 350-351).

The work was reprinted in 1759, and a revised edition appeared in Venice in 1763. Copies of this first edition are notoriously rare, and are rarely found in the fine condition of the Norman copy. PMM 203; Riccardi 1:180, no. 53.1; Whyte, pp. 41 and 127-152; Norman 277.

Estimate: $15,000-20,000

○316

BOSKOVICH, Ruggiero Giuseppe (1711-1787). *A Theory of Natural Philosophy... Latin-English Edition. From the Text of the first Venetian Edition published under the Personal Superintendence of the Author in 1763.* Chicago and London: Open Court Publishing Company, 1922.

2°. Original green cloth. *Provenance*: J. M. Child, the editor, given to him by the Yugoslav Ambassador Gavrilovich "as a sign of recognition of services rendered in connection with this edition of Boscovich's work" (inscription in English and Serbo-Croation on front free endpaper; given by Child to: Lancelot Law Whyte, editor of *Roger Joseph Boscovich: studies of his life and work* (inscription on front free endpaper). First edition in English, PRESENTATION COPY FROM THE EDITOR. Norman 278.

Estimate: $700-1,000

317

BOSSE, Abraham (1602-1676). *Traicté des manieres de graver en taille douce sur l'airin.* Paris: Abraham Bosse, 1645.

8° (171 x 108 mm). Collation: π^4 A-I^4 K^2. 42 leaves. 19 full-page engravings printed on 12 leaves, including 2 additional engraved titles, engraved dedication leaf, and 16 numbered engraved illustrations, most printed on rectos and versos of the leaves, numbers 5 and 6 repeated as usual. Inserted in this copy are two additional folding engraved plates, each 256 x 320 mm. (see below). (Light marginal discoloration, small dampstain to gutters of first few leaves.) Contemporary vellum over pasteboard; modern vellum-backed slipcase.

Provenance: Daniel Dumonstier (1574-1645), court painter under Henri IV (inscription by him on typographic title stating that the book was given to him by the author, his friend, two poems in Dumonstier's hand on front free endpaper, and inscription on lower free endpaper "Pour Mr. Dumonstier," possibly in the author's hand); an unknown 18th-century professional or amateur engraver (4 manuscript pages on front and back flyleaves containing six itemized and priced recipes for various varnishes, including a "vernis de Mr. Tardieu," presumably the engraver Nicolas-Henri Tardieu (1674-1749), and two "vernis de Mr. Herisset," presumably the engraver Antoine Herisset (1685-1769).

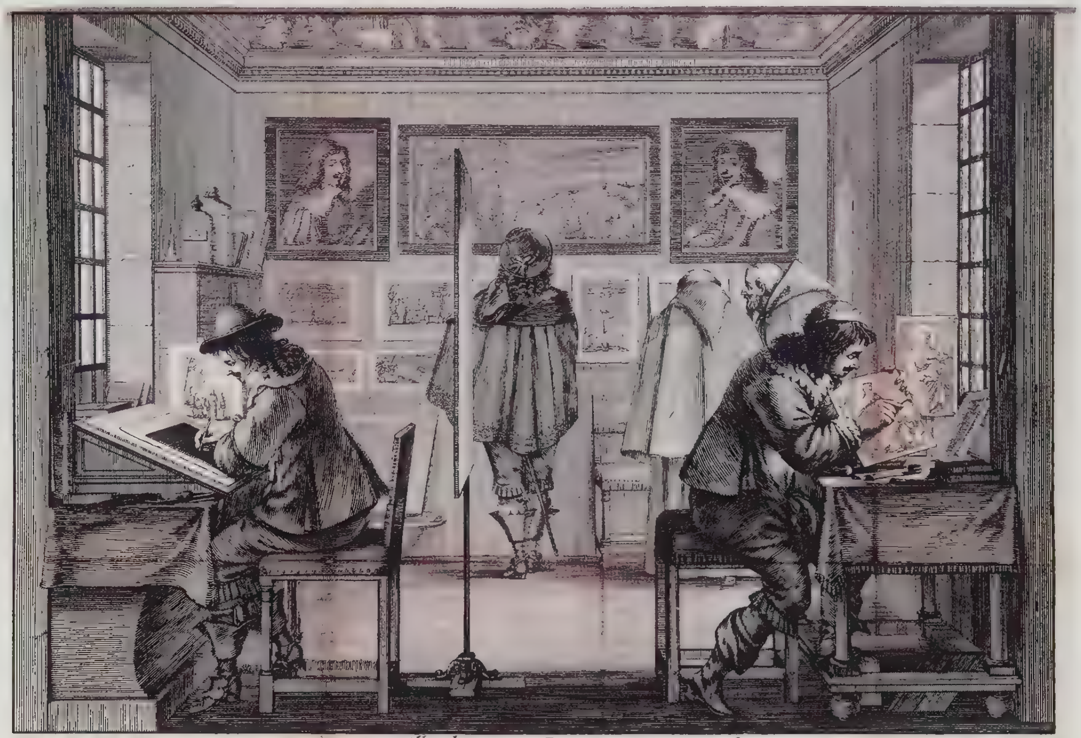
PRESENTATION COPY OF THE FIRST EDITION OF THE FIRST TREATISE ON INTAGLIO PRINTMAKING, EXTRA-ILLUSTRATED WITH TWO IMPORTANT ADDITIONAL ENGRAVINGS DEPICTING CONTEMPORARY ENGRAVING AND PRINTING PRACTICES. Bosse was a prolific engraver and author of several works on the arts of painting, drawing, and perspective. His treatise on the intaglio techniques, dedicated to "Messieurs les Amateurs" of the arts of engraving and etching, contains a lengthy and detailed series of instructions touching every aspect of engraving with a burin and etching on both hard- and soft-grounds. Several chapters are devoted to preparation of the plates and the varnishes, others cover the actual techniques of engraving and etching, and the final section is devoted to printing. Each process is illustrated with finely engraved plates by Bosse. The frequently reprinted and widely translated work was "not only the first on its subject but for more than a century it remained the standard" (Ivins, *Prints & visual communication*, Cambridge, 1969, p. 75).

Daniel Dumonstier, a member of the third generation of a dynasty of French artists, was a practicing engraver and portrait painter who was successively painter to the Dauphin (the future Louis XIII), to Henri IV, and to Gaston, Duc d'Orléans, the King's brother. Dumonstier was in great demand for his highly lifelike portraits, and was known for his sharp and satirical wit. His extensive collection of books, manuscripts, objets d'art, medals and natural history curiosities was renowned; part of it went to Jules Mazarin after his death, while another portion was destroyed upon orders of Anne of Austria for its reputed licentiousness. The two poems written in his hand at the front of this copy are apparently unpublished. The first, a eulogy addressed to a certain "Lafemas" is signed Gombaut, presumably the poet Jean Ogier de Gombault (ca. 1570-1666). The second poem, entitled "Amour de Gombaut sur la mort de mademoiselle de Fieubet," is a reciprocal eulogy: signed "Lafemas" [a pseudonym of Dumonstier?], it refers to Gombault's poem "Sur la mort de mademoiselle de Fieubet," published in his *Poésies* in 1646.

The two additional plates by Bosse were almost certainly inserted in this copy by the author to enhance his gift to Dumonstier. Captioned "Graveurs en taille douce au burin et a leau forte" and "Cette figure vous montre comme on imprime les planches de taille douce," and dated 1643 and 1642 respectively, the engravings are realistic depictions of the principal activities of an engraving studio, the first showing two engravers at work with customers browsing in front of a print-covered wall in the background, and the second showing three workmen, one engaged in inking a plate, the second wiping off a plate, and the third, at center, printing on a rolling-press. Both are present in fine, dark impressions. (Cf. Blum, *L'oeuvre gravé de Abraham Bosse*, pp. 154-156).

Bigmore and Wyman, p. 72; Blum, pp. 403-421; Brunet I, 1127; Cicognara 251; Norman 279.

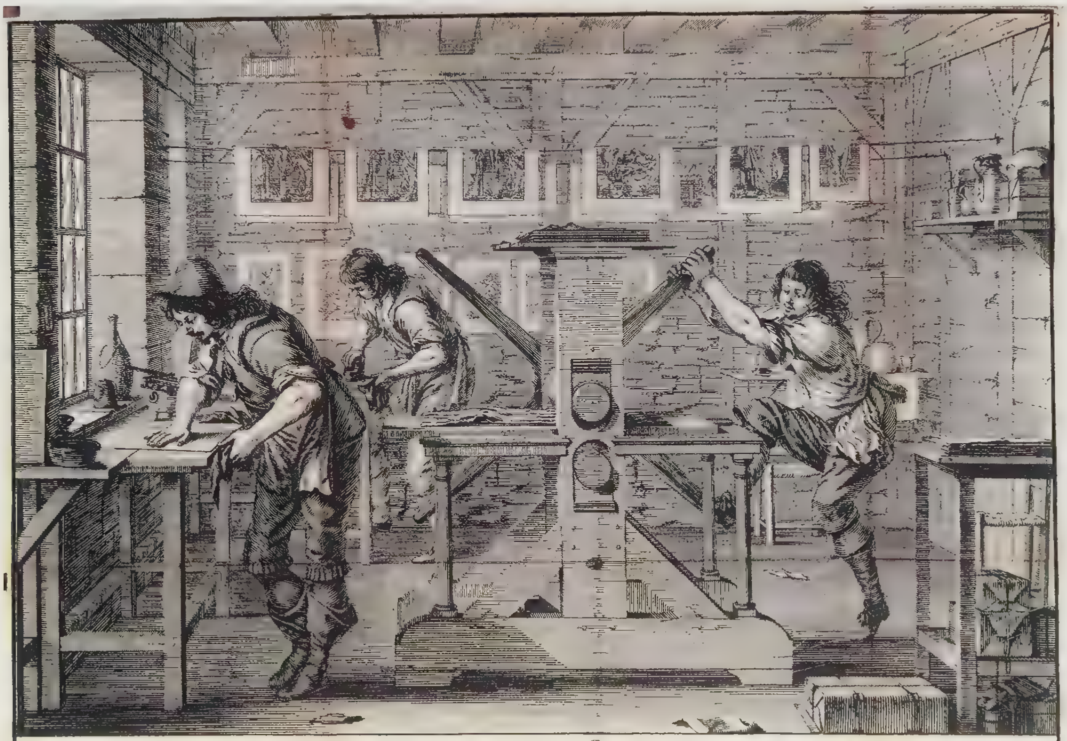
Estimate: $7,000-9,000



Graueurs en taille douce au Burin et a Leaue forte

Celuy au Burin eſtand vniment, vn peu de Cire blanche ſur le Coſté poly de ſaplanche chaude, frotte le derriere de ſon deſſein comuné de Ceruze, en ſorte quil ne blanchiſſe que peu, lattache fixe ſur ſaplanche preſſe dune pointe aſſez fort les Contours de ſes figures, et ilz ſe trouuent oſtant le deſſein merquez de blanc ſur la Cire et repaſſant ſad. pointe ſur leſd. Contours les empraint dans le Cuiure, puis il en oſte la Cire ſur le feu, cela fait il graue auec le burin Celuy a leaue forte a ſa planche bien polie, et vn peu chaude il y met vn verny dont celuy quon tient le meilleur eſt Composé de raiſine poix Grecque cuittes auec huille de noix il lapplicque auec le doigt leſtend de la paulme de la main le noircit a la fumeé de la chandelle puis met laplanche ſur vn feu de Charbons ardants juſque a ce quelle ne fume que peu lors il jette de leaue derriere la planche apres cela son deſſein eſtans frotté de ſanguine au derriere il en marque les Contours ſur ſon verny comme le Graueur au burin et y trace apres tout ſon ouurag auec des pointes dacier dur, apuyant fort ou legerem ſelon la groſſeur et profondeur qui veut donner a ſes traitz, puis ayant frotté le derriere de ſaplanche auec du ſuif il la met en vn lieu panchant jette leaue forte deſſus a plus.rs repriſes a Cause des douceurs et Eſloigneme quil Couure de tems en tems dhuille doliue et ſuif fondus enſemble cela fait il eſſuye la planche en oſte le verny auec Charbon doux moullé deaue Comme et retouche au burin ou il eſt neceſſ.re cette eaue forte eſt composée vinaigre vert de gris ſel armoniac et Comun [illegible] broyez et peu boullis enſemble en vn pot plombé

fait aleaue forte par Boſſe a Paris en Lyſle du palais lan 1643 auec priuilege



Cette figure vous montre Comme on Imprime les planches de taille douce.

Lancre en eſt faite dhuille de noix bruſlée et de noir de lie de vin, dont le meilleur vient Dallemagne Limprimeur prend de Cete ancre auec vn tampon de linge en ancr [illegible] vn peu chaude, leſſuye apres legerem auec dautre linge et acheue de la nettoyer auec la paume de ſa main. Cela fait il met cette planche a lenuers ſur la table de ſa presse aplique d [illegible] trempe et reposé, et Couure cela dune foeuille dautre papier et dun ou deux Langes puis en tirant les bras de ſa presse il fait paſſer la table auec la planche entre deux [illegible]

faict a leau forte par Boſſe a Paris en Lyſlle du palais lan 1642 [illegible]

ↄ318

BOUGUER, Pierre (1698-1758). *Essai d'optique, sur la gradation de la lumière.* Paris: Claude Jombert, 1729.

12° (165 x 96 mm). 3 folding engraved plates, 2 ½-page publisher's catalogue at end, woodcut headpieces and initials. (First blank removed, traces of booklabel adhered to title). Contemporary mottled calf, spine gilt, edges marbled and gilt (wear to joints and extremities, tear to head of spine). *Provenance*: Looten de l'Enclos (engraved armorial 18th-century bookplate); P. Lanzweert, pharmacist of Ostende (typographic book-label, G3r).

FIRST EDITION of the first treatise on photometry. As the discoverer of a practical method of measuring the intensity of light, Bouguer was the founder of this branch of optics. A youthful prodigy who established himself early in life as the leading French authority on nautical matters, Bouguer merely dabbled in optics as a hobby. Nevertheless, the *Essai* contains two fundamental contributions to the subject. The first was his method of using the naked eye "not as a meter but as a null indicator, i.e., to establish the equality of brightness of two adjacent surfaces" (DSB), and then applying Kepler's law of inverse squares. His second discovery concerned the transmission of light through transparent surfaces: "In a medium of uniform transparency the light remaining in a collimated beam is an exponential function of the length of its path in the medium. This law was restated by J. H. Lambert in his *Photometria* (1760) and, perhaps because of the great rarity of copies of Bouguer's *Essai*, is sometimes unjustifiably referred to as Lambert's law" (op. cit.). Norman 283.

Estimate: $1,200-1,800

ↄ319

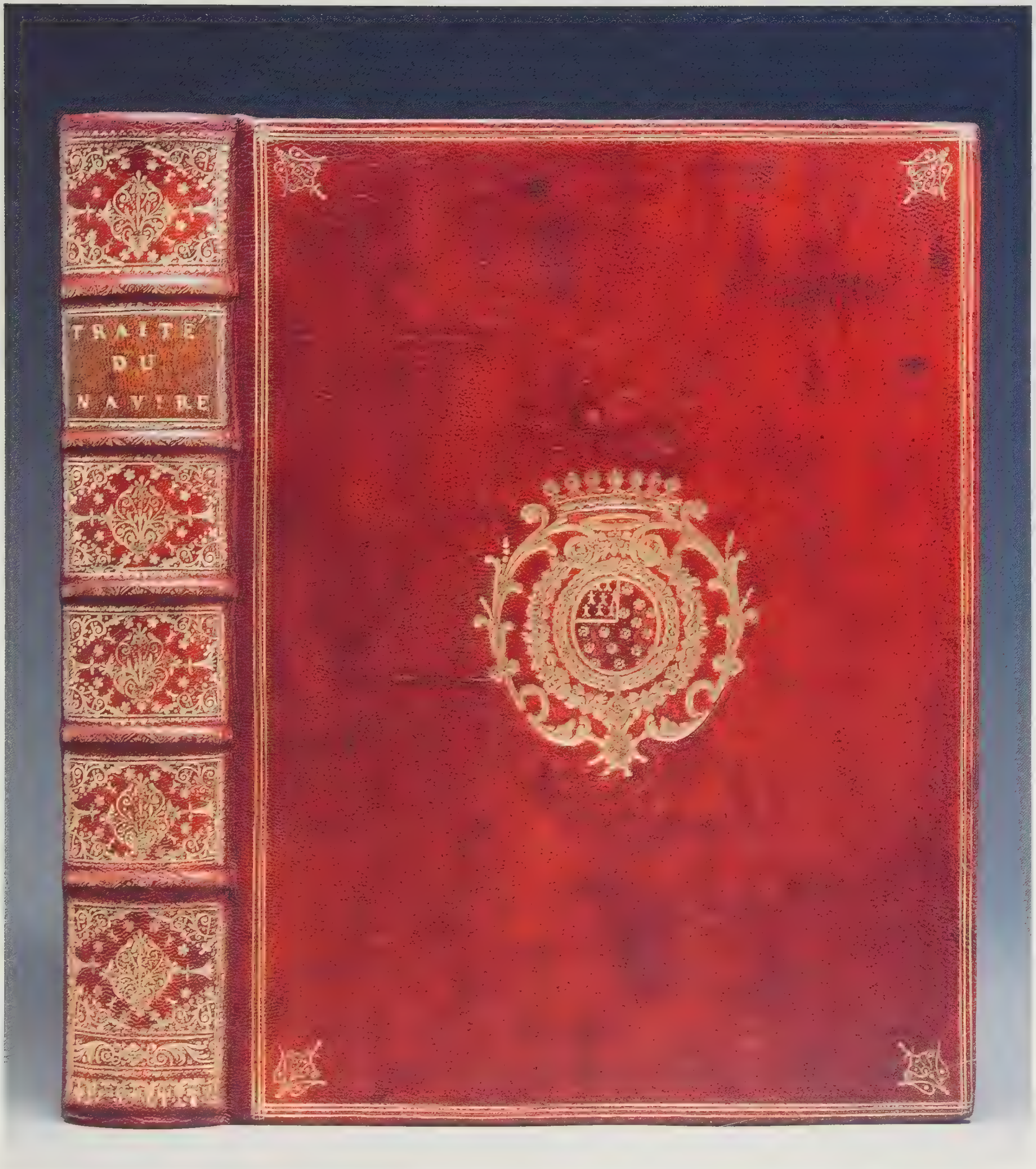
BOUGUER, Pierre (1698-1758). *Traité du navire, de sa construction, et de ses mouvemens.* Paris: J. Chardon for Jombert, 1746.

4° (250 x 188 mm). 2 leaves errata and privilege at end, 12 numbered engraved folding plates, 4 engraved headpiece vignettes (the first with the arms of the dedicatee) by Chedel, woodcut title vignette, initials and tailpieces, typographic headpiece ornaments. (Occasional faint discoloration, dampstain to foremargins of the folding plates, minor small stains to S2-3 and 3E2.) Contemporary red morocco gilt, covers panelled wtih triple gilt fillet, azuré fleuron tools at corners, at center the gilt blocked arms of the dedicatee Phélypeaux de Maurepas (Olivier 2265.1), spine gilt, brown morocco lettering-piece, gilt edges; buckram folding case.

Provenance: Bound for the dedicatee Jean-Frédéric Phélypeaux, Comte de Maurepas et de Pontchartrain (1701-1781), Minister of State for the Department of the Marine. Loosely inserted is an autograph letter signed by Maurepas, 1 page, 4to, Paris, 11 February 1740, to an unidentified correspondent, giving orders to release from prison a certain Duplessis.

FIRST EDITION, THE DEDICATION COPY, of one of the first treatises on naval architecture to discuss the mathematics of shipbuilding, and the first of several useful works on naval architecture and navigation by Bouguer. The Comte de Maurepas sponsored the famous expedition to Peru of 1735-1744, undertaken by the Académie des Sciences in order to verify Newton's hypothesis of the flattening of the terrestrial globe in the polar regions. Bouguer was one of four members of the Academy, with La Condamine, Louis Godin and J. de Jussieu, who took part in the voyage (see lots 320, 578 and 579). Singer, *Technology* IV, p. 577; Norman 284.

Estimate: $3,000-4,000


TRAITÉ
DU
NAVIRE

›320

BOUGUER, Pierre (1698-1758). *La figure de la terre, déterminée par les observations de Messieurs Bouguer, & de la Condamine, de l'Académie Royale des Sciences, envoyés par ordre du Roy au Pérou, pour observer aux environs de l'Équateur.* Paris: chez Charles-Antoine Jombert, 1749.

4° (250 x 193 mm). With cancel leaves A1, N4, Y4 and Ll3, errata leaf at end. 8 folding engraved plates and one folding engraved map, woodcut title vignette by Papillon after Charles-Nicolas Cochin, 2 engraved headpieces, by Flipart l'ainé after Cochin and after Soubeyran, woodcut factotum initials and tailpieces. (Occasional light browning.) Contemporary mottled calf, spine gilt, red-stained edges (rubbed).

FIRST EDITION of the most important work to issue from the Peruvian expedition of 1735-1744, undertaken by the Academy with the encouragement of Maurepas with the goal of measuring an arc of the meridian near the equator, which resulted in the determination of the shape of the earth as an oblate spheroid. Bouguer quarreled with his fellow scientists on the expedition, La Condamine and Godin, and thus published his own report separately. "Bouguer's work on the expedition... was of high quality. Apart from the main geodetic program, he did an astonishing amount of other scientific work, measuring the dilatation of various solids by making use of the large range of temperatures found in the Cordillera, investigating the phenomena of atmospheric refraction and the measurement of heights with the barometer, devising a new type of ship's log, and undertaking a number of other researches, despite the very difficult physical conditions under which the geodetic measurements had to be carried out" (DSB). Alden & Landis 749/35; Sabin 6876; Norman 285.

[*With*:]

BOUGUER, Pierre. *Traité d'optique sur la gradation de la lumiere; ouvrage posthume.* Paris: H. L. Guérin & L. F. Delatour, 1760. 4° (268 x 210 mm). 7 folding plates, woodcut title vignette and tailpieces. UNCUT AND UNOPENED. (Occasional minor marginal dampstaining, final quire and folding plates detached.) Later 18th-century wrappers, manuscript title label on spine, pastedown endpapers from a late 18th-century almanac; cloth folding box. *Provenance*: E. N. da C. Andrade (bookplate, Sotheby's London, 7 February 1972, lot 29).

FIRST EDITION of Bouguer's second and expanded work on photometry, completed just before his death and published by his friend the astronomer l'Abbé Nicolas Louis de la Caille. "The *Traité* goes far beyond the *Essai*, describing a number of ingenious kinds of photometers ... and even attempting an elaborate theory of the reflection of light from rough surfaces, although this was not successful. The third and last part of the book, however, gives a valid elementary theory of the horizontal visual range through an obscuring atmosphere, arriving at a law, usually credited to H. Koschmieder, considered to belong to the twentieth century" (DSB). Norman 286. (2)

Estimate: $1,500-2,000

›321

BOWDITCH, Nathaniel (1773-1838). *The New American Practical Navigator.* Newburyport, (Mass.): Edmund M. Blunt, 1802.

8° (220 x 132 mm). Folding engraved frontispiece map, 7 engraved plates, woodcut diagrams in text. (Some foxing and minor browning to text and plates.) Contemporary tree calf (rebacked preserving original spine); cloth folding case. *Provenance*: Joseph King, New York (contemporary signature on front free endpaper).

FIRST EDITION OF ONE OF THE GREATEST BOOKS ON PRACTICAL NAVIGATION. On his voyage in 1800, the skilled navigator and mathematical prodigy, Nathaniel Bowditch discovered numerous errors in the existing navigational literature in use at the time. He discovered that the various English *Navigators* then in use had been calculated on the erroneous assumption that 1800 was a leap year, causing his ship to go 23 miles off its course. Rather than further revising new editions on the subject, Bowditch decided to write a new book on his own. "The result was this, the best book of its kind in English ... [it] was the first complete epitome of practical navigation for the common man, and was at once acclaimed by the maritime world ... Often termed the greatest book in all the history of navigation, this intellectual achievement of our early culture was indispensable to the maritime and commercial expansion of the nineteenth century" (Grolier/American). Dibner *Heralds of Science* 15; Grolier/American 25; Norman 292.

[*With*:]

MOORE, John Hamilton (1738-1807). *The New Practical Navigator, being an Epitome of Navigation...* Newburyport: Edmund M. Blunt, 1799. 8° (211 x 132 mm). 8 engraved plates (some browning). Contemporary sheep (rebacked, corners worn). FIRST AMERICAN EDITION. Blunt's edition corrected "several hundred" of Moore's errors and added a number of useful new tables, some of which were furnished by Nathaniel Bowditch. "Blunt published one more edition of Moore's New practical navigator (1800), before changing its title to *The new American practical navigator* [see above] and crediting Bowditch as the author of the work" (Norman 1543). (2)

Estimate: $2,000-3,000

›322

[BOYLE, Robert (1627-1691)]. "An Epistolical Discourse of Philaretus to Empericus, written by a Person of singular Piety, Honour, and Learning, inviting all true lovers of Vertue and Mankind, to a free and generous Communication of their Secrets and Receits in Physick." In: *Chymical, Medicinal and Chyrirgical Addresses: Made to Samuel Hartlib*. London: G. Dawson for Giles Calvert, 1655.

Small 8° (136 x 80 mm). *Collation*: A^4 (∗)^8 †^{4} B-L^8 (second and third signatures are misbound at front). 96 leaves. (Title laid down and with some chips at edges one just catching a few letters, some marginal browning, few marginal chips.) Modern half morocco. *Provenance*: some early marginalia; Frederick Hockley (signatures dated 1828 and 1829); London, Royal College of Physicians (light stamp on title, bookplate and withdrawal stamp).

FIRST EDITION, CONTAINING ONE OF BOYLE'S EARLIEST PUBLISHED WORKS. Boyle's anonymously written twenty-page essay is among the nine addresses included in this rare anthology. Boyle was introduced to Samuel Hartlib by Lady Ranelagh, and he seems to have turned his interest to medicine and such practical matters as agriculture. Medicine led Boyle to chemistry, at first for the preparation of drugs, and he quickly became a skillful chemical experimenter and an original chemical thinker. This essay reflects his modern attitude when he urges physicians to divulge their secrets for the well-being of the publick: "...I find some Physitians objecting, that having laid out much of their mony, and more of their time, in the search of such and such a secret, that discovery is now become either their Fortune, or their Subsistence, and by consequent the divulging it to others would prove destructive to themselves. In this case I must ingeniously confess that all I can require is, that they deny not those that want it the benefit of the Composition, whilst that bewrays not the receipt, and refuse not to impart the Secret it self to those that need it, upon reasonable terms: for they that will not assent to this, must flie for shelter to some other excuse."

The other works include: "Whether the Urim of Thummim were given in the Mount"; "Sir George Ripley's Epistle to King Edward unfolded"; "Gabriel Plats Caveat for Alchymists"; "A Conference concerning the Phylosphers Stone"; "Whether or no each Several Disease hath a Particular Remedy"; William De Rand's "A short and easie Method of Chirurgery"; Gerard Malynes' "Philosophy about the essence and existence of metals"; and "The New Postilions, pretended Propphetical Prognostication, of what shall happen to Physitians, Chyrurgeons, Apothecaries, Alchymists, and Miners." VERY RARE. Not in Ferguson or Duveen. Fulton *Boyle* [I]; Wing H-978; Norman 297.

Estimate: $2,000-3,000

›323

BOYLE, Robert (1627-1691). *Certain physiological Essays, written at distant Times, and on several Occasions*. London: for Henry Herringman, 1661.

4° (187 x 148 mm). Contemporary English blind-ruled sheep (front joint starting near head, rear cover skinned at several areas, edges rubbed).

FIRST EDITION, containing the first clear outline of Boyle's corpuscular theory of matter. "A disciple of the empiricism and rationalism of Bacon and Descartes, Boyle devoted his life to establishing an empirically based, mechanistic theory of matter, and to devising a scienfific, rational theoretical chemistry based upon this theory" (Norman). *Certain Physiological Essays* announced Boyle's firm support for the particulate theories of matter, which at the time was slowly displacing the Aristotelian view of the joint role of matter and form. It contains Boyle's first published accounts of chemical experiments. "The title represents a late use of the word Physiological in its original Greek sense of signifying all natural knowledge. It contains discourses on Physics, Chemistry, Meteorology and kindred natural knowledge" (Duveen). Duveen, p. 92; Fulton *Boyle* 25; Garrison-Morton 665.1; *Heirs of Hippocrates* 564; NLM/Krivatsy 1666; Waller 10754; Wing B-3929; Norman 298.

Estimate: $1,500-2,500

324

BOYLE, Robert (1627-1691). *The sceptical chymist: or chymico-physical Doubts & Paradoxes.* London: J. Cadwell for J. Crooke, 1661.

8° (164 x 110 mm). Main title-page and second title-page printed in red and black (the second bound immediately following the main one). (Main title lightly soiled.) Modern calf antique preserving old endpapers; full morocco folding case. *Provenance*: Mantell (signature on title-page); Capt. Head, R.N. (bookplate); Kent & Canterbury Hospital Library (stamp on title-page); E.N. da C. Andrade (bookplate).

FIRST EDITION OF A MILESTONE IN THE HISTORY OF CHEMISTRY AND MASTERPIECE OF SCIENTIFIC LITERATURE. Written in the form of a dialogue, *The sceptical chymist* presented Boyle's hypothesis that matter consisted of atoms and clusters of atoms in motion and that every phenomenon was the result of collisions of particles in motion. Boyle suspected that none of the then accepted elements—the earth, air, fire and water of of the Aristotelians; or the salt, sulfur, and mercury of the Paracelsans—was truly elementary. In this work he also defended his 'corpuscular chemistry, which was first clear outline of which he published earlier the same year (see lot 323).

"The importance of Boyle's book must be sought in his combination of chemistry with physics. His corpuscular theory, and Newton's modification of it, gradually led chemists towards an atomic view of matter ... Boyle distinguished between mixtures and compounds and tried to understand the latter in terms of the simpler chemical entities from which they could be constructed. His argument was designed to lead chemists away from the pure empiricism of his predecessors and to stress the theoretical, experimental and mechanistic elements fo chemical science. *The Sceptical Chymist* is concerned with the relations between chemical substances rather than with transmuting one metal into another or the manufacture of drugs. In this sense the book must be considered as one of the most significant milestones on the way to the chemical revolution of Lavoisier in the late eighteenth century" (PMM).

A FINE COPY OF THIS RARE WORK. Dibner *Heralds of Science* 39; Fulton *Boyle* 33; Grolier/Horblit 14; Partington II, pp. 497-98; PMM 141; Wing B-4021; Norman 299.

Estimate: $25,000-35,000

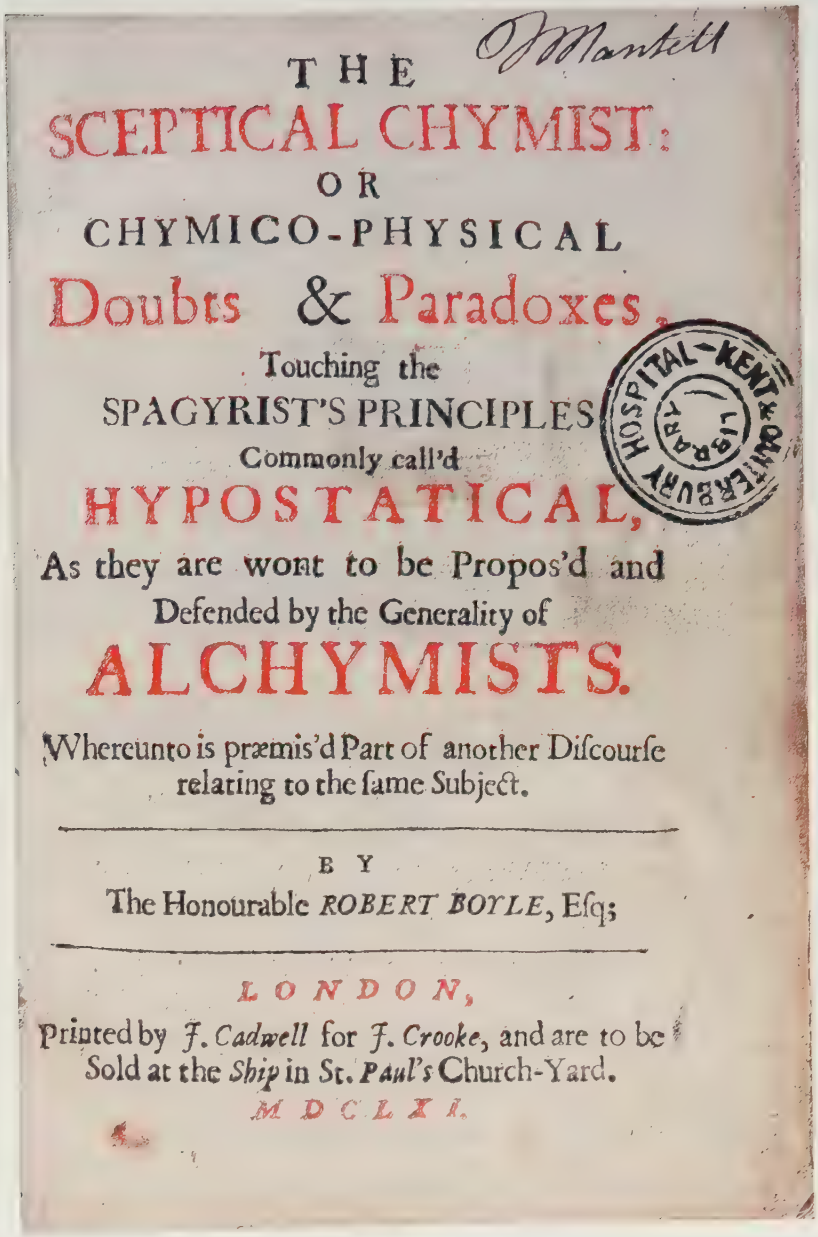
325

BOYLE, Robert (1627-1691). *New Experiments physico-mechanical, touching the Spring of the Air, and its Effects. -A Defence of the Doctrine touching the Spring and Weight of the Air ... against the objections of Franciscus Linus. -An Examen of Mr. T. Hobbes his Dialogus Physicus de naturâ aëris.* Oxford: H. Hall for T. Robinson [and London: J.G. for Thomas Robinson], 1662.

4° (201 x 153 mm). 2 engraved plates, including one folding (tear repaired with patch on verso, short clean tear on X4 crossing 3 lines.) (Some minor marginal dampstaining and soiling.) 17th-century English calf gilt, sides with gilt monogram (joints repaired, some wear at edges and rubbing). *Provenance*: a few early marginalia; composite monogram within wreath on covers.

Second edition, AND THE FIRST TO CONTAIN THE ANNOUNCEMENT OF BOYLE'S LAW OF GASES. In the second part of this edition, his *Defence* against the attacks of Linus on the first edition of this work, Boyle states the experimental proof of the law of reciprocity of pressure and volume in a gas—or, "Boyle's law." The second edition is "particularly important for what Boyle called an 'hypothesis' but what we know as 'Boyle's Law': that the volume of air in a confined space varies inversely as the pressure. He demonstrated this by much experimental detail: with experiments on rarefaction performed by others, including Hooke, and on compression performed by himself" (PMM). The first English air pumps were not actually designed by Boyle, but by Robert Hooke, who had been taken on as a paid assistant in about 1655. Dibner *Heralds of Science* 142; Fulton *Boyle* 14; Grolier/Horblit 15; NLM/Krivatsy 1660; PMM 143; Wing B-3999; Norman 300.

Estimate: $3,000-4,000



G Mantell

THE
SCEPTICAL CHYMIST:
OR
CHYMICO-PHYSICAL
Doubts & Paradoxes,
Touching the
SPAGYRIST'S PRINCIPLES
Commonly call'd
HYPOSTATICAL,
As they are wont to be Propos'd and
Defended by the Generality of
ALCHYMISTS.

Whereunto is præmis'd Part of another Diſcourſe
relating to the ſame Subject.

BY
The Honourable *ROBERT BOYLE*, Eſq;

LONDON,
Printed by *J. Cadwell* for *J. Crooke*, and are to be
Sold at the *Ship* in St. *Paul's* Church-Yard.
MDCLXI.

KENT & CANTERBURY HOSPITAL LIBRARY

324 (actual size)

ɔ326

BOYLE, Robert (1627-1691). *Tracts ... containing New Experiments, touching the Relation betwixt Flame and Air. And about Explosions*. London: for Richard Davis, 1672.

8° (172 x 106 mm). Gatherings k-x bound after P4, and (∗)7-8, (∗∗)^8 bound at end. (Title-page, first few preliminaires, and final leaf with fore-margins crudely repaired, some light marginal water-damage.) Contemporary English calf (joints cracked, wear to extremities). *Provenance*: Smith (early signature deleted on title-page).

FIRST EDITION, first state title-page (integral and dated 1672). "Important observations on respiration are scattered through nearly all of Boyle's works. He was impressed with the idea that life was a slow-burning flame, and he often pointed out the analogy between living processes and the burning of a candle. It was in the present tract, however, that he gave special attention to the theme, insisting upon the term *flamma vitalis*. In many places he approached the modern theory of oxidation" (Fulton). Duveen, p. 94; Fulton *Boyle* 101; NLM/Krivatsy 1695; Wing B-4061; Norman 304.

[*With*:]

BOYLE, Robert. *Tracts ... containing New Experiments, touching the Relation betwixt Flame and Air. And about Explosions*. London: for Richard Davis, 1673. 8° (168 x 103 mm). (Tear on K6 crossing a few lines of text, some minor light browning). Contemporary English mottled calf (rebacked, some wear to edges). *Provenance*: "Hamiltone" (early signature and notations on front flyleaf); William B. Shaw (bookplate). FIRST EDITION, with cancel title-page (dated 1673). Fulton *Boyle* 102; Wing B-4061; Norman 305.

(2)

Estimate: $1,000-1,500

ɔ327

BOYLE, Robert (1627-1691). *Experiments, Notes, &c. about the Mechanical Origine or Production of divers particular Qualities*. London: E. Flesher, for R. Davis, 1676 [all but penultimate sub-title dated 1675].

11 parts in one volume, 8° (175 x 102 mm). Without the inserted leaf ∗ containing "Directions for the Book-binder" on recto and errata on verso. (Some occasional minor marginal soiling.) Contemporary English sheep (rebacked in calf, corners repaired). *Provenance*: early signature on title deleted; Will Stanley (early signature on title-page).

FIRST EDITION, second state title-page dated 1676 (and presumably a cancel). The most important tracts in this collection of pamphlets are those relating to electricity and magnetism, in which Boyle refutes the Aristotelian explanations of these phenomena. The final tract, entitled *Experiments and Notes about the Mechanical Origine or Production of Electricity* (sub-title dated 1676), is the first work on electricity in the English language. The tracts on taste and smell are the first monographs devoted to these senses. Fulton *Boyle* 124; NLM/Krivatsy 1704; Wing B-3977; Norman 303.

Estimate: $1,500-2,500

ɔ328

BOYLE, Robert (1627-1691). *Memoirs for the natural history of Humane Blood, especially the Spirit of that Liquor*. London: for Samuel Smith, 1683/84.

8° (159 x 94 mm). Contemporary English mottled calf (rebacked with original spine preserved, some wear to spine ends and corners).

Provenance: JOHN EVELYN (1620-1706), diarist and founding member of the Royal Society (with his [or his calligrapher's, Richard Hoare] press-mark "N.27," lightly deleted and changed to "31," and possibly his small ink sketch on rear pastedown showing an instrument); William Upcott (1779-1845), who first edited Evelyn's diary for publication, and whose involvement with Evelyn's books and manuscripts books and manuscripts (signed and inscribed on the front free endpaper: "Upcott Jan. 1814" and "from the Evelyn Library"); some ink marginalia and underlining in red pencil; Signet Society (bookplate). For a discussion on Upcott's activities relating to Evelyn's books and mss. at this time see Keynes' *John Evelyn* (2nd ed. 1968).

FIRST EDITION. JOHN EVELYN'S COPY OF BOYLE'S MOST IMPORTANT MEDICAL WORK. "The first analysis of blood, Boyle's *Memoirs* may be considered the first scientific study in physiological chemistry, exhibiting methods which have become universally adopted" (Garrision-Morton). Both Boyle and Evelyn were among the early founders of the Royal Society.

This copy contains the cancel title-page bearing the imprint date 1683/84, which was altered from the earlier state to protect Boyle from charges of plagiarism. Fulton *Boyle* 146; Garrison-Morton 861; NLM/Krivatsy 1708; Waller 1388; Wing B-3993; Norman 308.

Estimate: $2,000-3,000

○329

BOYLE, Robert (1627-1691). *An Essay of the Great Effects of Even Languid and Unheeded Motion - An Experimental Discourse of some Unheeded causes of the Insalubrity and Salubrity of the Air, being a part of an intended Natural History of Air.* London: M. Flesher, for Richard Davis, 1685.

Two parts in one volume, 8° (168 x 102 mm). Without blanks I7 and I8 in first part, and final blank of second part. Contemporary English sheep (rubbed). *Provenance*: bookplate with motto "touch not the cat bot a glove."

FIRST EDITION, with first state title-page (without Boyle's name). Boyle's anonymously published work on languid and unheeded motion "gives him a place in the history of thermodynamic concepts. Many passages indicate that Boyle was thinking of a 'mechanical equivalent of heat,' and that he considered heat to be the product of small particles in 'local motion'" (Norman). It also contains Boyle's re-evaluation of the ultimate particles of which air is composed. The second part on the salubrity and insalubrity of air contains Boyle's observations on the causes of the plague. Fulton *Boyle* 163; NLM/Krivatsy 1715; Wing B-3948; Norman 309.

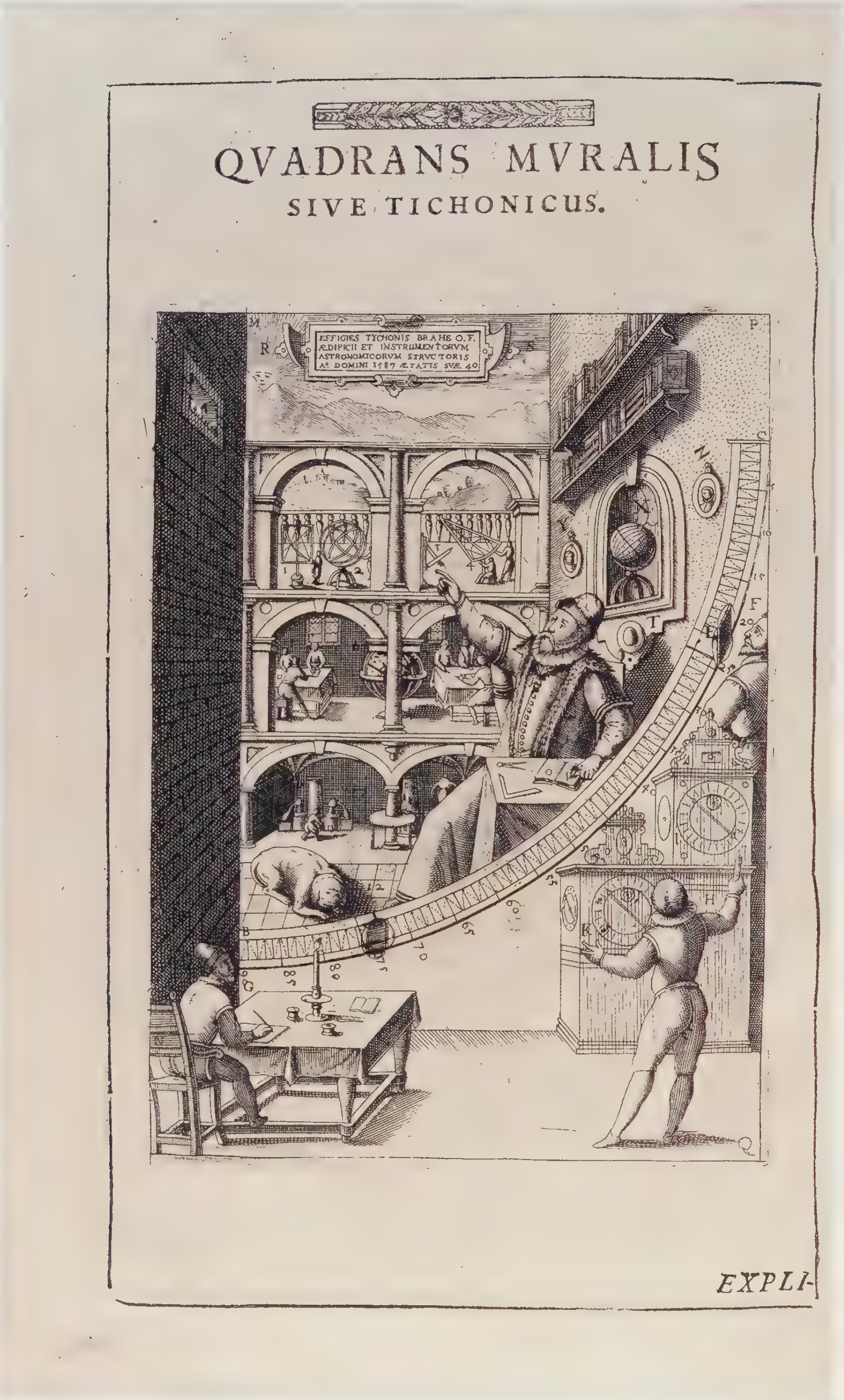
Estimate: $1,000-1,500

○330

BOYLE, Robert (1627-1691). *Certain physiological Essays and other Tracts ... second edition.* London: for Henry Herringman, 1669. - *New Experiments and Observations touching Cold.* London: for Richard Davis, 1683. Two works bound in one volume, 4° (199 x 152 mm). Contemporary English blind-panelled calf (rebacked preserving early lettering pieces, corners worn). *Provenance*: Sir Richard Vyvyan (engraved armorial bookplate). Both second editions. Fulton *Boyle* 26 and 71; NLM/Krivatsy 1667 and 1684; Wing B-3930 and B-3997; Norman 301 and 307. — *Experiments and considerations touching Colours.* London: for Henry Herringman, 1670. 8° (161 x 100 mm). Later half sheep gilt (some wear). *Provenance*: John Howard (early signature on title-page). Second edition in English (the first edition in English was published in 1664). Duveen, p. 93; Fulton *Boyle* 58; Wing B-3968; Norman 302. — *Of the reconcileableness of Specifick medicines to the Corpuscular Philosophy. To which is Annexed a Discourse about the Advantages of the Use of Simple Medicines.* London: for Sam. Smith, 1685. 8° (165 x 104 mm). (Title reinforced along fore-margin, some light dampstaing at end.) 18th-century calf. FIRST EDITION of two treatises which "represent Boyle's attempt to apply scientific principles to seventeenth-century medical practice" (Norman). Fulton *Boyle* 166; *Heirs of Hippocrates* 566; NLM/Krivatsy 1717; Osler 949; Waller 1391; Wellcome II, p. 224; Wing B-4013; Norman 306.

(3)

Estimate: $1,000-1,500



QVADRANS MVRALIS
SIVE TICHONICUS.

EFFIGIES TYCHONIS BRAHE O.F.
ÆDIFICII ET INSTRUMENTORVM
ASTRONOMICORVM STRVCTORIS
Aº DOMINI 1587 ÆTATIS SVÆ 40

EXPLI-

331

331

BRAHE, Tycho (1546-1601). *Astronomiae instauratae mechanica.* Nuremberg: Levinus Hulsius, 1602.

2º (319 x 198 mm). Title with large engraved portrait of the author standing beneath an arch hung with the arms of the families of Brahe and Bille, 6 large engravings of astronomical instruments in the text, 18 large and 7 smaller woodcuts, woodcut initials, head- and tailpieces.

The title engraving in an early state, with minimal shading. (A6 with short tear along gutter, small marginal holes to F1 and F4.) Contemporary vellum over pasteboard, original pair of silk ties (covers slightly bowed).

Second edition, first trade edition, of one of Brahe's most important works, a description of his astronomical instruments and of the observatory at Hven. In 1576, King Frederick II conferred upon Brahe the lifelong use of the island of Hven in the Danish Sound. There the astronomer constructed the most advanced astronomical observatory of his time, which he christened Uraniborg (heavenly castle); in 1584 he added a second observatory, Stjerneborg, with additional instruments in 5 subterranean rooms and a study with only the vaulted roof and the tops of the walls above ground. Brahe's brass-encased globe was housed in the library of the main building: "On this globe, over the years, Tycho marked the exact positions, referred to the year 1600, of the fixed stars that he observed... In the southwest room on the ground floor at Uraniborg... was Tycho's most famous instrument, the mural quadrant [for measuring the altitude at which celestial bodies crossed the meridian], with a radius of about six feet... Inside the quadrant's arc, for ornamental purposes, was painted a life-size portrait of Tycho seated at a table, with arm outstretched as though pointing to a cylinder..." (DSB). The two observatories and principal instruments, including the great globe, now preserved in Copenhagen, are illustrated and fully described in the present catalogue, which also contains a short autobiography and a summary of the principal results of Brahe's observations. The first edition of 1598 was printed by Philip de Ohr on Brahe's own press at Heinrich Rantzov's castle at Wandbeck, near Hamburg, where Brahe spent a year after quitting Denmark; it consisted of about 40 copies which Brahe distributed privately. With the exception of the portrait and the engraving on C6c, replacing a woodcut, the illustrations of this published edition were printed from the blocks and plates of the first edition, sold by the author's heirs to Levinus Hulsius.

A FINE COPY. Dreyer, *Tycho Brahe*, pp. 260-264 and 370; Houzeau and Lancaster 2703; Norman 320.

Estimate: $6,000-9,000

o332

BRAHE, Tycho (1546-1601). *Opera omnia, sive astronomiae instauratae progymnasmata in duas partes distributa... Secunda autem de mundi aetherei recentioribus phaenomensis agit.* Frankfurt: Johann Gottfried Schönwetter, 1648. 4° (222 x 176 mm). 2 parts in one, separately titled and paginated, 2-leaf dedication (omitted in some copies) bound in at end, 9 full-page woodcuts of astronomical instruments, numerous smaller woodcut diagrams, publisher's woodcut devices on titles and colophon page, woodcut head- and tail-pieces and initials. (Light browning throughout as usual.) 18th-century speckled calf, later calf lettering-piece on spine (upper cover detached, front free endpaper loose, lower joint starting, headcap defective). *Provenance*: Earl of Hopetoun (bookplate).

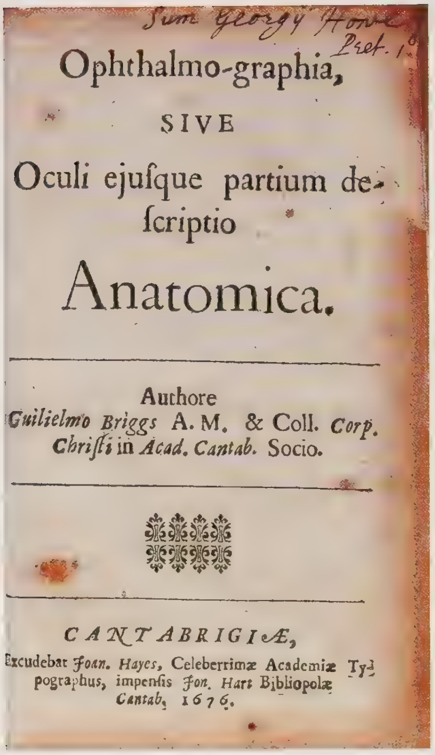
First collected edition of the *Progymnasmata* (first published posthumously by Kepler at Prague in 1602) and *De mundi Aetherei* (Uraniborg, 1588), the first two parts of a projected but never completed trilogy. The first work contains Brahe's observations of the supernova in Cassiopeia of 1572-1574, as well as his revisions of the theories of solar and lunar movement and a catalogue of the positions of 777 fixed stars. The second work records Brahe's observations of the comet of 1577, and a description of his geoheliocentric theory of the universe, a view that evolved from his study of these two astronomical phenomena, and which was one of several new theories that helped pave the way for acceptance of the Copernican doctrine. Houzeau and Lancaster 2704; Norman 321.

[*With*:]

DREYER, John Louis Emil (1852-1926). *Tycho Brahe: a picture of scientific life and work in the sixteenth century*. Edinburgh: Adam and Charles Black, 1890. 8°. Collotype plates, line block text illustrations. Original cloth (extremities worn). *Provenance*: HARVEY CUSHING (1839-1939), presentation copy (July 1937 presentation inscription to); Herbert M. Evans, pioneer American collector of books of science and medicine (December 1937 presentation inscription to): Francis R. Johnson (bookplate). Norman 322.

(2)

Estimate: $1,500-2,000



Sum Georgy Howe
Pret. 1

Ophthalmo-graphia,
SIVE
Oculi ejuſque partium deſcriptio
Anatomica.

Authore
Guilielmo Briggs A. M. & Coll. *Corp. Chriſti* in *Acad. Cantab.* Socio.

CANTABRIGIÆ,
Excudebat *Joan. Hayes,* Celeberrimæ Academiæ Typographus, impenſis *Jon. Hart* Bibliopolæ
Cantab, 1676.

334

›333

BRIGGS, Henry (1561-1631). *Arithmetica Logarithmica sive logarithmorum chiliades triginta, pro nùmeris naturali serie crescentibus ab unitate ad 20,000: et a 90,000 ad 100,000.* London: William Jones, 1624.

2° (325 x 200 mm). Without the very rare 6 extra leaves found in some copies. Woodcut diagrams in text. Contemporary calf (rebacked); cloth folding case.

Provenance: C. Mason (signature on title, apparently not the astronomer); deaccession stamp on front free endpaper (signed by librarian and dated 1908); E.N. de C. Andrade (bookplate).

FINE COPY OF THE FIRST EDITION of the first large table of decimal logarithms, and the work from which modern tables descend. "Briggs learned of logarithms from their inventor John Napier, with whom he worked on the development of logarithms during the two years before Napier's death" (Norman). The first part is a dissertation on the nature and use of logarithms, and includes a description of the parts taken by Napier and Briggs in developing them. The second part consists of tables of 30,000 logarithms from 1-20,000 and 90,000-100,000. STC 3739; Norman 339.

Estimate: $2,000-3,000

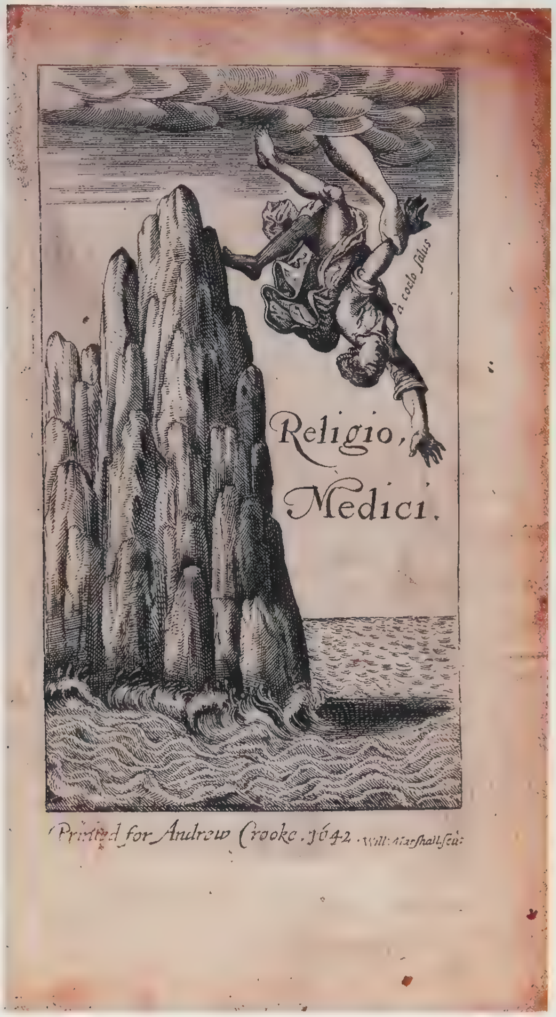
›334

BRIGGS, William (1642-1704). *Ophthalmo-graphia, sive oculi eiusque partium descriptio.* Cambridge: Joannes Hayes for Jonathan Hart, 1676.

8° (143 x 87 mm). 2 folding engraved plates. (Some scattered foxing and spotting to text and plates, some marginal browning.) Modern speckled calf antique. *Provenance*: George Howe (contemporary signature on title-page).

FIRST EDITION OF THE FIRST ENGLISH TREATISE ON THE ANATOMY OF THE EYE. "Briggs described the papilla of the optic disc and hypothesized that vibrations caused by rays of light striking fibres of the retina were conveyed to the papilla and thence to the optic thalami, on the model of a spider's web" (Garrison-Morton). Garrison-Morton 1481.2; NLM/Krivatsy 1779; Wellcome II, p. 238; Wing B-4668; Norman 340.

Estimate: $3,000-4,000


a coelo salus
Religio, Medici.
Printed for Andrew Crooke. 1642. Will: Marshall sculp:

ↄ335

BROWNE, Thomas (1605-1682). *Religio Medici*. [London]: Andrew Crooke, 1642. 8° (142 x 85 mm). (Text browned). Old sheep (rebacked). Morocco, slipcase. *Provenance*: Thomas Bigge (inscription); H.H. Bonnell (signature, verso of M8); Hannah D. Rabinowitz (bookplate). FIRST EDITION. "Browne's *Religio Medici* describes the religion and philosophy of a tolerant, humorous and latitudinarian mind" (DSB). Browne, a doctor by profession, had an active interest in a wide range of subjects, from archeology and philosophy to physics and biology. *Religio Medici*, his first published work, was a philosophical tract as much as a religious one, a Platonist's contemplation on the world. Its publication met mixed reactions; in Paris it was published by a Roman Catholic; in Rome it was listed on the *Index Expurgatorius*. The two anonymous 1642 editions were published without the author's permission. The third edition, published in 1643, also by Andrew Cooke, was authorized, and not only corrected printing and textual errors, but also modified the tenor of some of the more dogmatic assertions. The book was a great success, reprinted eleven times during the author's lifetime and translated into Latin, Dutch, French and German. Garrison-Morton 6612.90; Grolier Club *English Literature*, 26; NLM/Krivatsy 1840; PMM 131; Wellcome II, p.252; Wing B-5166; Norman 356.

[*Boxed with*:]

BROWNE, Thomas. *Religio Medici*. [London]: Andrew Cooke, 1642.

8° (144 x 81 mm). (Some browning and foxing to text). Contemporary blind-ruled calf; Second edition. NLM/Krivatsy 1841; Wing B-5767; Norman 357.

(2)

Estimate: $4,000-6,000

336

BROWNE, Thomas (1605-1682). *Pseudodoxia Epidemica: or, Enquiries into very many received Tenents, and commonly presumed Truths.* London: T.H. for Edward Dod, 1646.

2° (265 x 167 mm). (Occasional light browning to text, very minor worming to lower margin of a few pages, not affecting text). Contemporary calf (spine restored, some wear to joints and extremities). *Provenance*: Dymoke Dunholm (signature with motto dated 1725 on front free endpaper and inscription on rear flyleaf).

FIRST EDITION of Browne's refutation through observation and experimental investigation of popular misconceptions in the fields of history, folklore, science, philology, natural history, medicine, and embryology. The presumed second state of the title-page with publisher's name, Thomas Harper, in imprint abbreviated as above. *Heirs of Hippocrates* 487; NLM/Krivatsy 1834; Waller 19462; Wellcome II, p.253; Wing B-5159; Norman 358.

Estimate: $600-800

337

BRUNNER, Johann Conrad à (1653-1727). *Experimenta nova circa pancreas. Accedit diatribe de lympha & genuino pancreatis usu.* Amsterdam: Henr. Wetstenium, 1683.

8° (154 x 98 mm). Engraved frontispiece, 4 engraved plates (2 folding). (Title patched affecting one letter of author's name, dampstain on frontispiece.) Contemporary vellum. *Provenance*: Some underlining and marginal notes in red pencil.

RARE FIRST EDITION of this pioneering work on internal secretion. Through his experiments on the pancreas in dogs, extracting the pancreatic juices and extirpating portions of the organ in living animals, Brunner came close to discovering pancreatic diabetes. Garrison-Morton 3927; NLM/Krivatsy 1886; Wellcome II, p.258; Norman 362.

Estimate: $2,000-3,000

338

BUFFON, Georges Louis Marie Leclerc, comte de (1707-1788). *Histoire naturelle générale et particuliére, avec la description du Cabinet du Roi.* Paris: Imprimerie Royale, 1749-1804.

44 volumes and one atlas volume, 4° (249 x 192 mm). 1275 engraved plates, including portrait and 12 folding maps, mostly by Jacques de Séve and his son Jacques de Séve *fils*. Contemporary French calf, spines gilt and with letter pieces in various colors, first 3 volumes with coat-of-arms on sides, last 6 volumes *Poisson* bound similarly but with spines differently decorated.

Provenance: Vincent Etienne Nicolas Roujault (coat-of-arms on covers of first 3 volumes [Olivier 1147]).

FIRST EDITION OF "THE MOST CELEBRATED TREATISE ON ANIMALS EVER PRODUCED" (Dibner). The above set includes the *Supplements* and the continuation of Buffon's monumental work by Lacépède. Dibner *Heralds of Science* 193; Nissen *ZBI* 672; PMM 198; Wellcome II, p. 267; Norman 369. Not collated, but apparently complete, sold not subject to return.

(45)

Estimate: $10,000-15,000

338

ↄ339

BUFFON, Georges Louis Marie Leclerc, comte de (1707-1788). *Les époques de la nature.* Paris: Imprimerie Royale, 1780.

12° (162 x 101 mm). 2 engraved folding maps and 6 engraved plates. Contemporary pink boards gilt, gilt lettered spine labels (minor wear to corners).

FIRST SEPARATE EDITION, first published in the fifth volume of the *supplement* to Buffon's *Natural history.* The *époques de la nature* contains Buffon's theory of the history of the earth. Wellcome II, p.268; Norman 370.

(2)

Estimate: $1,200-1,800

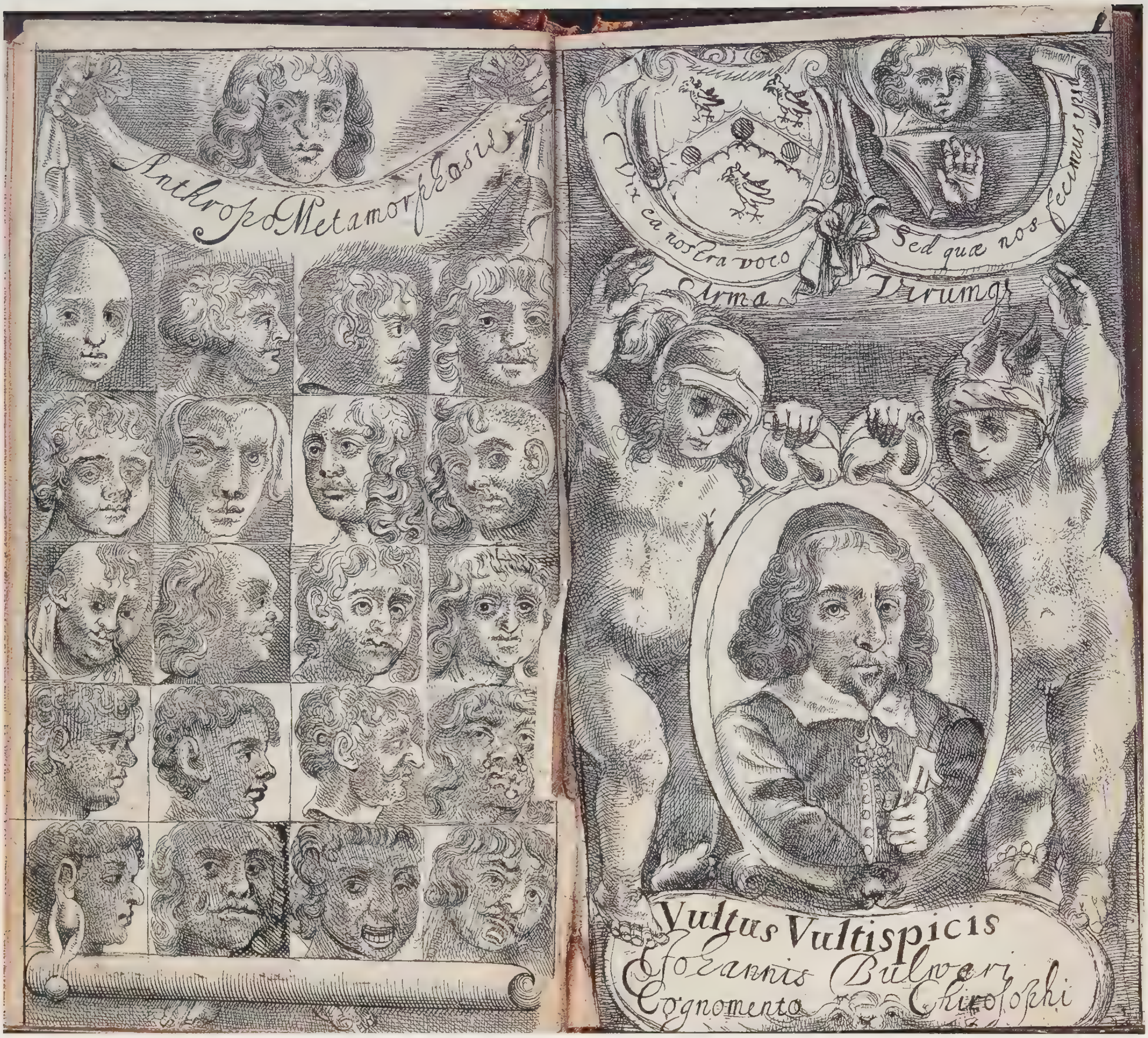
ↄ340

[BULWER, John (fl. 1644-1662)]. *Pathomyotomia or a Dissection of the significative Muscles of the Affections of the Minde ... by J.B. Sirnamed the Chirosopher.* London: W.W. for Humphrey Moseley, 1649.

12° (146 x 80 mm). Contemporary English sheep (portion of surface skinned on upper cover).

VERY RARE FIRST EDITION of this anonymously published treatise on the expression of the emotions, in which Bulwer treats the relationship between muscular action and psychology. "Bulwer was the first Englishman to write about the teaching of deaf-mutes" (Garrision-Morton 3347 note). NLM/Krivatsy 1931; Wellcome II, p.270; Wing B-5468; Norman 371.

Estimate: $1,500-2,500



›341

[BULWER, John (fl. 1644-1662)]. *Anthropometamorphosis: Man Transform'd; or, the artificial Changeling ... By J.B.* London: for J. Hardesty, 1650.

12° (137 x 77 mm). Double-page etched frontispiece incorporating portrait of the author and various head types. (Some minor worming at some inner margins, affecting a few letters). 17th-century calf (lettering piece worn away). *Provenance*: "W" (letterpress initial mounted on pastedown).

VERY RARE FIRST EDITION of this curious anonymous diatribe against the altering or enhancing of the natural human form to conform to the dictates of fashion. The subtext on the title-page reads: "Historically Presented, in the mad and cruel Gallantry, Foolish Bravery, ridiculous Beauty, Filthy Finenesse, and loathsome Lovelinesse of most Nations, fashining & altering their Bodies from the Mould intended by Nature." At the end is an appendix entitled, "Exhibiting the Pedigree of the English Gallant." NLM/Krivatsy 1927; Wellcome II, p.270; Wing B-5460 (recording 7 copies, 2 in the U.K.); Norman 372.

Estimate: $1,200-1,800

ɔ342

BUONANNI, Filippo (1638-1725). *Observationes circa viventia, quae in rebus non viventibus reperiuntur. Cum micrographia curiosa.* Rome: D.A. Herculis, 1691.

4° (220 x 157 mm). Engraved title on 2Q2v and 68 engraved plates by Buonanni. (Circular library stamp removed from title and patched.) Contemporary vellum, spine gilt lettered (upper joint cracked).

FIRST EDITION. Buonanni, a pupil of Athanasius Kircher, constructed his own compound microscopes for use in his scientific investigations. In the *Observationes* he defends his theories of spontaneous generation, which had first been put forward in his *Ricreazione dell'occhio e della menta* (1681) and had been attacked by Redi for its methodological errors. The *Micrographia curiosa*, a separately paginated addition, includes interesting observations on early microscopes, it gives a precise description of the author's own model and the famous microscopes of the Bolognese instrument-maker, Joseph Campani. Garrison-Morton 264; Nissen *ZBI* 752; NLM/Krivatsy 1935; Norman 374.

Estimate: $2,000-3,000

ɔ343

BURNET, Thomas (ca. 1635-1715). *Telluris theoria sacra ... libri duo priores de diluvio & paradiso. - Telluris theoria sacra ... libri duo posteriores de conflagratione mundi, et de futuro rerum statu.* London: R.N. for Walter Kettilby, 1681-1689 .

Four parts in two volumes, 4° (201 x 158 mm) [Vol. 1], (199 x 155 mm) [Vol. 2]. Lacking folding maps [Vol. 1], numerous engraved plates in text, some full page. (Lacks A1 frontispiece, title fore-margin trimmed [Vol. 1]; lacks Ll4 at end [Vol. 2].) Later boards (rubbed) [Vol. 1]; contemporary English calf (some wear to spine ends) [Vol. 2]. *Provenance*: Dr. Reuz (signature on title-page); E. Glooner (signature on front flyleaf and possibly his marginalia and extensive notations on blank end pages); owner's stamp on front flyleaf [Vol. 1]. W. Tilly (ex dono inscription on title-page); Thomas Newcomb (signature on title-page dated 1700 and possibly his notations on front free endpaper); John Newcomb (inscription on front pastedown dated 1722); Edward Giddy (signature on title-page) [Vol. 2].

FIRST EDITION. The first two parts of Burnet's *Theory of the Earth*, on Paradise and the Deluge, were originally published in Latin in 1681. In 1689 he reissued the first two parts (not present) adding two additional parts on the Conflagration and Millenium. The first English versions of the two volumes appeared in 1684 and 1690, respectively (see below). Welcome II, p.275; Wing B-5948 and B-5949; Norman 375.

[*With*:]

BURNET, Thomas. *The Theory of the Earth.* London: R. Norton for Walter Kettilby, 1684-90. 2° (296 x 188 mm). Engraved frontispieces (small repair to frontispiece in first volume), 2 folding global maps (one showing North and South America), engraved text illustrations. Modern calf antique. *Provenance*: T. Willughby (early signature in Vol. 2). FIRST EDITION IN ENGLISH. Wellcome II, p. 275; Wing B-5950 and B-5954; Norman 376.

(4)

Estimate: $800-1,200

ɔ344

BURTON, John (1697-1771). *An Essay towards a Complete new System of Midwifery...* London: James Hodges, 1751.

8° (196 x 120 mm). 18 engraved plates (17 folding) by George Stubbs (light browning.) Contemporary calf (light rubbing to spine and edges, upper cover almost detached). *Provenance*: Ex bibliotheca Acad. Georgiae Augustae (library stamp on verso of title); Niedersächsische Staats- und Universitäts-Bibliothek, Göttingen (release stamp on verso of title page).

FIRST EDITION. Burton was the first to suggest that puerperal fever is contagious and one of the first to give a detailed discussion of caesarean section. Sterne satirized him as "Dr. Slop" in *Tristram Shandy.* THE ILLUSTRATIONS ARE THE FIRST PUBLISHED PRINTS BY THE ANIMAL PAINTER GEORGE STUBBS (see lot 812). Garrison-Morton 6268; Waller 1667; Wellcome II, p. 277; Norman 380.

Estimate: $1,000-1,500

345

[BURTON, Robert (1577-1640)]. *The Anatomy of Melancholy, what it is. With all the kindes, causes, symptomes, prognostickes, and severall cures of it. By Democritus Iunior.* Oxford: John Lichfield and James Short for Henry Cripps, 1621.

Chancery 4° (183 x 141 mm). Collation: a-e^8 f^4 (title, dedication to the 8th Baron Berkeley, preface, synopsis first partition); A-S^8 (first partition, synopsis second partition); T-Z^8 Aa-Hh^8 (second partition, synopsis third partition); Ii-Zz^8 Aaa-Ccc^8 (third partition); Ddd^4 (Conclusion of the author to the Reader, Errata). Woodcut initials and headpieces, typographical ornaments. (Minor staining.) Contemporary English calf, blind fillets and central arabesque stamp in center of the covers (rebacked, original spine-strip laid down), morocco fall-down-back box.

Provenance: William Wolles (contemporary signature); John Lesse (1765 inscription); Crewe Hall (armorial bookplate).

FIRST EDITION of the classic study on depression. Numerous editions attest its early popularity. Its treatment is encyclopedic, with long digressions, and the book's influence - literary and psychiatric - has never waned. RARE in contemporary binding and fine condition. Grolier/English 18; NLM/Krivatsy 1967; Jordan-Smith 1; PMM 120; STC 4159; Norman 381.

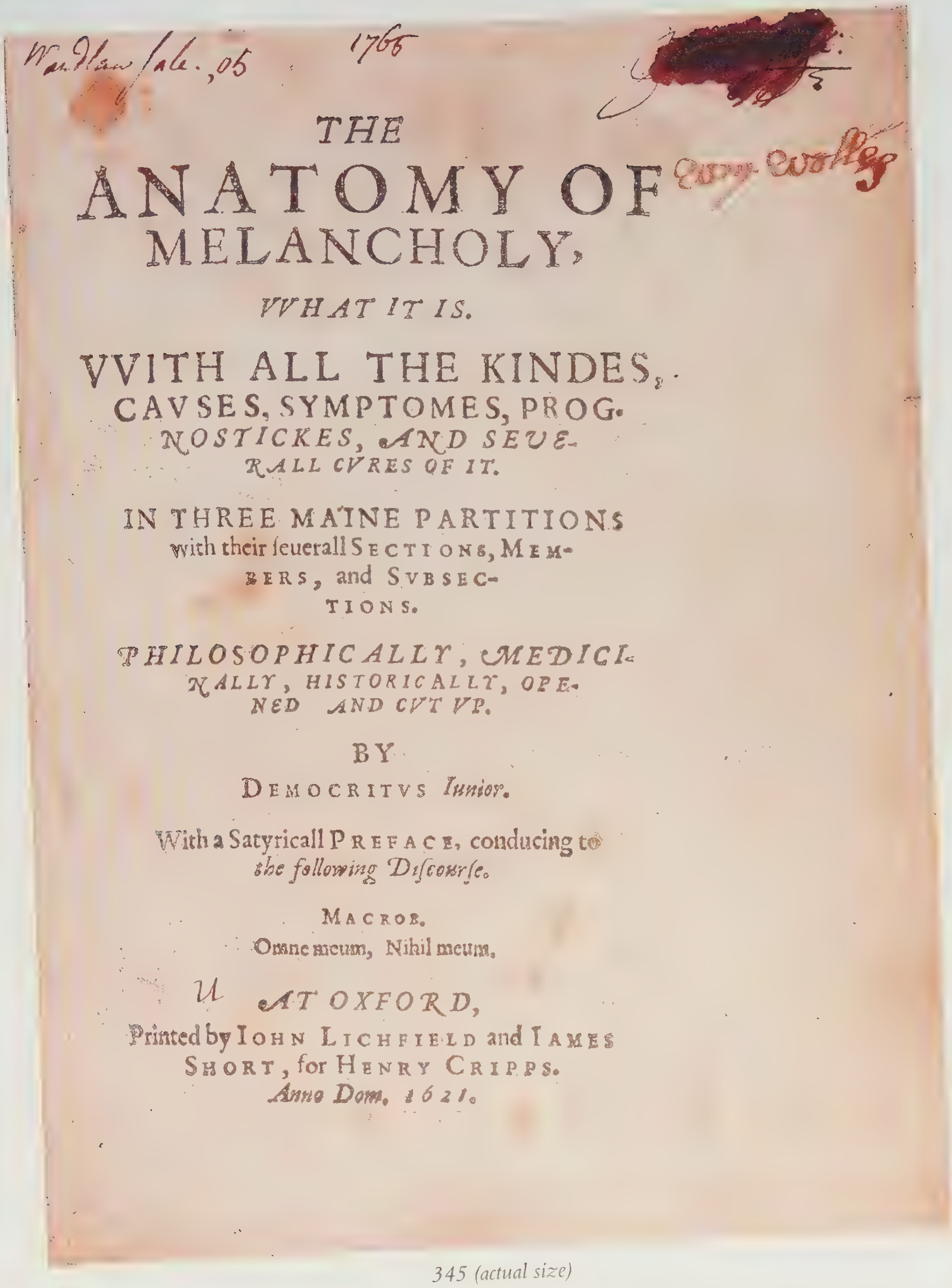
Estimate: $20,000-30,000

346

CADOGAN, William (1711-1797). *An Essay upon Nursing and the Management of Children, from their Birth to Three Years of Age.* London: J. Roberts, 1748. 8° (195 x 122 mm). (Light browning). Modern buckram. *Provenance*: College of Physicians (bookplate on front pastedown and ink stamp on title). FIRST EDITION. "Published at a time when sensible practices of child care were largely neglected, the pamphlet became very popular and went through eight editions during the next 18 years" (*Heirs of Hippocrates*). Garrison-Morton 6322; *Heirs of Hippocrates* 911; Osler 2207; Wellcome II, p. 285; Norman 383. — CADOGAN. *A Dissertation on the Gout, and all Chronic Diseases, jointly considered.* London, 1771. 8° (199 x 127 mm). (Lacks half-title). Modern half-calf. FIRST EDITION. "Cadogan suffered from gout for many years, and this book is based on his personal observations" (*Heirs of Hippocrates*). Garrison-Morton 4498; *Heirs of Hippocrates* 912; Wellcome II, p. 285; Norman 384.

(2)

Estimate: $800-1,200



Wardlaw Sale ,05 1766 [redacted]

[illegible]

THE
ANATOMY OF
MELANCHOLY,
VVHAT IT IS.

VVITH ALL THE KINDES,
CAVSES, SYMPTOMES, PROGNOSTICKES,
NOSTICKES, AND SEVERALL CVRES OF IT.

IN THREE MAINE PARTITIONS
with their ſeuerall SECTIONS, MEMBERS, and SVBSECTIONS.

PHILOSOPHICALLY, MEDICINALLY, HISTORICALLY, OPENED AND CVT VP.

BY
DEMOCRITVS *Iunior.*

With a Satyricall PREFACE, conducing to
the following Diſcourſe.

MACROB.
Omne meum, Nihil meum.

U *AT OXFORD,*
Printed by IOHN LICHFIELD and IAMES
SHORT, for HENRY CRIPPS.
Anno Dom. 1621.

345 (actual size)

347

CADWALADER, Thomas (1708-1779). *An essay on the West-India dry-gripes; with the method of preventing and curing that cruel distemper. To which is added, an extraordinary case in physick.* Philadelphia: Benjamin Franklin, 1745.

4° (193 x 124 mm). Collation: A^4 (± A2.3) B-F^4. 24 leaves. Woodcut tailpiece ornament (Miller no. 19). (Occasional light foxing, small piece torn from upper margin of F4). Contemporary quarter sheep, boards covered in marbled paper, spine gilt panelled with red morocco lettering-piece (extremities worn with some loss to paper especially at fore-corners); modern half morocco folding case. *Provenance*: childish scribble on title-page (cropped).

FIRST EDITION OF ONE OF THE EARLIEST MEDICAL BOOKS CONTAINING SIGNIFICANT ORIGINAL RESEARCH TO BE PUBLISHED BY AN AMERICAN PHYSICIAN IN AMERICA. Cadwalader, a Philadelphia physician, was associated with Benjamin Franklin in founding the Philadelphia Library in 1731. His only printed work, the *Essay on the dry-gripes* is a classic account of the effects of lead poisoning. The various ailments known as the 'dry-gripes' were later identified as lead colic and lead palsy, "both very common ailments in eighteenth-century America due to the custom of drinking punch made with Jamaican rum, which was distilled in lead pipes. Cadwalader's treatise gives an excellent account of these ailments, for which he recommended mild cathartics and opium" (Norman). The "extraordinary case in physick" was one of a woman afflicted with osteomalacia (softening of the bones), upon whom Cadwalader performed an autopsy in 1742, one of the earliest recorded autopsies in America.

This copy is from the second issue, with a revised preface printed on the conjugate cancel leaves A2.3. "When in late March, 1745, Cadwalader completed the preface to his little essay and had it set in type, some third party, possibly even Ben Franklin, saw that the largely defensive and rambling introduction would not do and helped the doctor write a new one" (Miller).

VERY RARE. Evans 5553; Garrison-Morton 2094; Guerra a-213; Miller 369; Norman 385.

[*Bound after:*]

[TRONCHIN, Théodore (1709-1781)]. *A treatise on the colica pictonum; or the dry belly-ach.* Edited and translated from Latin into English by Ralph Schomberg (1714-1792). London: W. Johnston, 1764. 8°. Collation: *A*^{4} B-K^8 L^4. 80 leaves, *A*1 blank. (Slight discoloration.) First edition in English, a translation of Tronchin's *De colica pictonum* (1757; see lot 709). Norman 2096.

An interesting association of two rare early works on lead poisoning,

Estimate: $15,000-20,000

Essay on

AN

ESSAY

On the *WEST-INDIA* *DRY-GRIPES*;

WITH THE

METHOD of Preventing and Curing

THAT

CRUEL DISTEMPER.

To which is added,

An Extraordinary CASE in Phyſick.

PHILADELPHIA:
Printed and ſold by B. FRANKLIN.
M.DCC.XLV.

348

CAMERARIUS, Rudolph Jakob (1665-1721). "De sexu plantarum epistola." In: *Miscellanea curiosa sive ephemeridum medico-physicarum germanicarum Academiae Caesareo-Leopoldinae naturae curiosorum decuriae III. annus tertius...* Appendix pp. 31-36. Leipzig: Thomas Fritsch and Frankfurt: Johann Philipp Andrea, 1696.

4° (195 x 158 mm). Engraved title and 10 engraved plates. Contemporary vellum.

Camerarius' most important scientific achievement was the experimental demonstration of the sexuality of plants. He explained his findings in a long letter to Michael Bernhard Valentini, they where first published as a separate pamphlet in 1694, of which only a very few copies survive today. The above second printing (*Appendix* pp. 31-36) is followed by the first printing of Valentini's response to the letter (*Appendix* pp. 37-40). Norman 392.

[*Bound with:*] CAMERER. *Miscellanea Curiosa... annus quartus.* Frankfurt and Leipzig: Johann Michael Rüdinger and Engelbert Streck, 1697. 4°. Engraved title and 10 engraved plates.

Estimate: $1,000-1,500

349

CAMERARIUS, Rudolph Jakob (1665-1721). "De sexu plantarum epistola." In: VALENTINI, Michael Bernhard (1657-1729). *Pandectae medico-legales, sive responsa medico-forensia ex archivis Academiarum... Accedunt authoris declamationes panegyricae, polychresta exotica & dissert. epistolicae, varii argumenti.* Pp. 225-272. [Volume II contains the two additional treatise listed in the title]. Frankfurt: Johann Adam Jung, 1701.

2 volumes. 4° (202 x 165 mm). Engraved portrait frontispiece, title printed in red and black and 6 engraved plates (some browning, staining from bookplate removal on endpapers.) Contemporary blind stamped vellum.

Volume II contains the two additional treatises listed in the title: *Declamationes* Frankfurt, 1701 and *Polychresta* Frankfurt, 1700. The *Polychresta* includes a reprint of Camerarius's *De sexu plantarum epistola.* Dibner *Heralds of Science* 25; Norman 393.

(2)

Estimate: $1,200-1,800

ↄ350

CANDOLLE, Augustin Pyramus de (1778-1841). *Icones plantarum galliae rariorum nempè incertarum aut nondum delineatarum.* Fascicule I [all published]. Paris: H. Agasse and Bernard, 1808.

Large 4° (362 x 270 mm). 50 engraved plates by V. Plée after Pierre Jean François Turpin (some occasional minor foxing, mostly marginal, a few plates with some very pale marginal browning). Original paper-backed pink boards, uncut, upper cover with printed label (upper joint cracked, covers worn and soiled). *Provenance*: unknown recipient, possibly de Chambery (inscribed by the recipient on the front pastedown: "ex dono clarissimi authoris / Genevae 1818"); Bonjean de Chambery (signature on the front pastedown).

PRESENATION COPY OF THE FIRST EDITION. Turpin modeled his style after van Spaëndonck and Redouté, and Blunt considers him "possibly the greatest natural genius of all the French botanical painters of his day ... his drawings of botanical details have rarely been surpassed" (Blunt, pp. 180-81). Graesse II, 34; Nissen *BBI* 322; Pritzel 1471; Stafleu-Cowan TL2 989; Wellcome II, p.294; Norman 395.

[*With*:]

CANDOLLE, Augustin Pyramus de. *Théorie élémentaire de la botanique.* Paris: Chez Déterville, 1813. 8° (221 x 132 mm). Original pink mottled wrappers, uncut, printed spine label; cloth folding case. *Provenance*: F. Come (gift inscription from "W.D." on the half-title); Watler Pagel (b. 1898), medical historian (signature on inside front wrapper). FIRST EDITION of Candolle's outline of his principles of natural classification. Pritzel 1472; Stafleu-Cowan TL2 992; Norman 396.

(2)

Estimate: $1,000-1,500

ↄ351

CASSEBOHM, Johann Friedrich (1699?-1743). *Tractatus quatuor anatomici de aure humana, tribus figurarum tabulis illustrati.* [Vol. II *Tractatus quintus anatomicus de aure humana, cui accedit tractatus sextus anatomicus de aure monstri humani*]. Halle: Orphanotrophei, 1734-35.

2 parts in one volume. 4° (214 x 165 mm). 6 engraved folding plates (some browning throughout.) Contemporary vellum, spine ink-lettered (covers slightly bowing). *Provenance*: Joseph M. Zarini of Prato (18th-century bookplate).

FIRST EDITION of Cassebohm's contribution to the studies of the anatomy of the ear, especially of the embryonic ear. The sixth tract describes a malformed ear of a six-month fetus. Garrison-Morton 1547 and 469.1; *Heirs of Hippocrates* 848; Waller 1805; Wellcome II, p.309; Norman 409.

Estimate: $800-1,200

352

CASSERIO, Giulio (ca. 1552-1616). *De vocis auditisque organis historia anatomica.* Ferrara: Victorius Baldinus, 1601 (Part II: 1600).

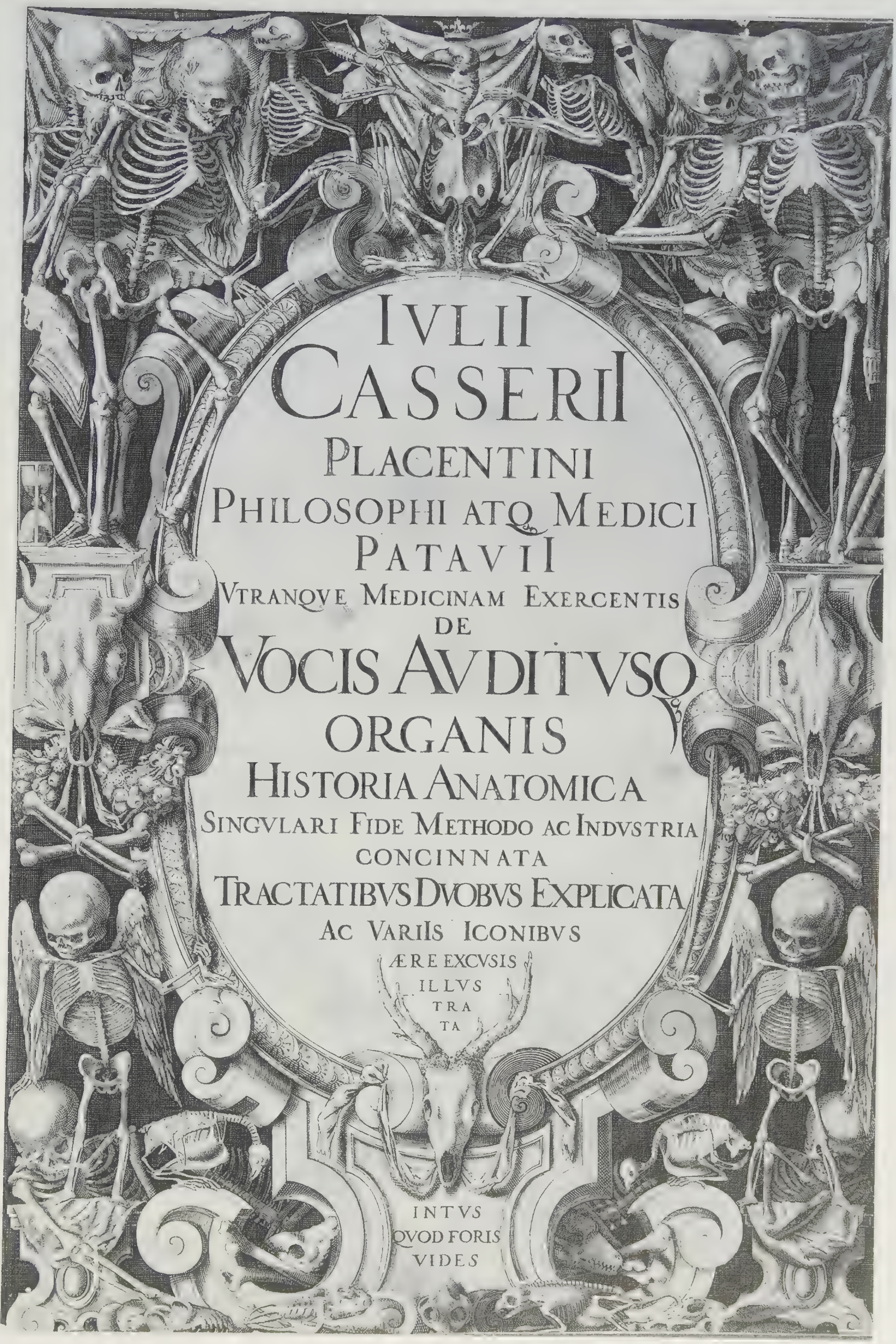
2 parts in one, 2° (360 x 251 mm). Engraved title, 2 engraved portraits, of the dedicatee Ranuccio Farnese, Duke of Parma, and of the author, title and portraits within oval medallions set within elaborate allegorical borders, 34 full-page anatomical engravings of which 22 of the vocal organs and 12 plates of the auditory organs, woodcut initials, head- and tailpieces. (Title and portraits slightly cropped, title-leaf rehinged, faintly dampstained, with a few small neatly filled holes and one repaired tear, occasional cropping to signatures and to typographical headings of 3 plates and lower border of 1 plate.) 19th-century vellum over pasteboard, 18th-century morocco lettering-piece preserved. *Provenance*: Herbert M. Evans (bookplate).

FIRST EDITION of "one of the sixteenth century's most ambitious and detailed investigations into comparative anatomy" (Norman). A student of Girolamo Fabrici who later became his successor at the University of Padua, Casserio attempted like his teacher to explain human anatomy by comparing each organ to its counterparts in different animals. *De vocis...* consists of two treatises, the first on the vocal organs and the second on the ear. "The first book, on the vocal apparatus, contains comparative investigations of the vocal organs of the cicada, grasshopper, and similar insects [and of other mammals, birds, and amphibians], as well as the first accurate description of the laryngeal muscles and nerves. The second book, on the structure of the ear, contains the first clear description of the ossicles, comparative studies of the auditory ossicles of various animals, and anatomical descriptions of the inner ear that were far more accurate than any given before, as well as a detailed account of the external ear muscles" (Grolier *Medicine*, p. 93). His description and illustration of the auditory apparatus of the fish was "all the more remarkable in that, up to this time, no one had believed fishes to possess a sense of hearing" (Norman).

The very fine unsigned anatomical engravings were probably the work of the German painter and engraver Joseph Maurer, who lived in the author's household, according to a passage in chapter 13 of Book I, in order to provide him with anatomical illustrations. "Medical historians rank the accuracy and artistry of the illustrations in this and other works of Casserio in the same category as those of Vesalius, with Casserio setting the standard in copperplates as Vesalius had done in woodcuts" (*Heirs of Hippocrates*). The striking engraved title (possibly "unique in the history of iconography in its use of dissected putti" - Grolier *Medicine*) and the two portraits have been recently attributed to Jacopo Ligozzi, illustrator for the Italian physician and naturalist Ulisse Aldrovandi.

Choulant-Frank, p. 223; Garrison-Morton 286; Grolier *Medicine* 24; *Heirs of Hippocrates* 397; NLM/Krivatsy 2199; Waller 1809; Wellcome 1333; Norman 410.

Estimate: $5,000-7,000



IVLII CASSERII

PLACENTINI
PHILOSOPHI ATQ MEDICI
PATAVII
VTRANQVE MEDICINAM EXERCENTIS
DE

VOCIS AVDITVSQ ORGANIS

HISTORIA ANATOMICA
SINGVLARI FIDE METHODO AC INDVSTRIA
CONCINNATA
TRACTATIBVS DVOBVS EXPLICATA
AC VARIIS ICONIBVS
ÆRE EXCVSIS
ILLVSTRATA

INTVS
QVOD FORIS
VIDES

353

CASSINI, Gian Domenico (Cassini I) (1625-1712). *Ephemerides Bononiensis mediceorum syderum ex hypothesis, et tabulis*. Bologna: Emilio Maria, & Fratelli de Manolessi, 1668.

2° (278 x 195 mm). Typographic tables, a few with woodcut symbols, 2 woodcut initials, type ornament headpiece. (A few leaves lightly foxed.). Contemporary limp vellum, covers gilt panelled. *Provenance*: 18th-century ms. initials "o i s" on front free endpaper; 19th-century shelfmark label on spine.

FIRST EDITION of Cassini's tables of the movements of the four satellites of Jupiter discovered by Galileo. Lacking sufficiently precise and comprehensive observations, neither Galileo nor his successor at the University of Pisa, Vincenzo Renieri, were able to complete these tables, undertaken in hopes of finding a solution to the problem of determining longitude. Thanks to his friendship with the famous Roman lensmakers G. Campani and E. Divini, Cassini was able to obtain powerful telescopes not available to his predecessors. His *ephemerides*, published shortly before his move to France, were employed for several decades by navigators as an aid in the calculation of longitude, and by other astronomers: Olaus Röhmer, for instance, used them in 1675 for his demonstration that light has a finite speed. They were superseded by more precise tables published by Cassini in Paris in 1693. Riccardi I, 279; Norman 411.

Estimate: $1,500-2,000

354

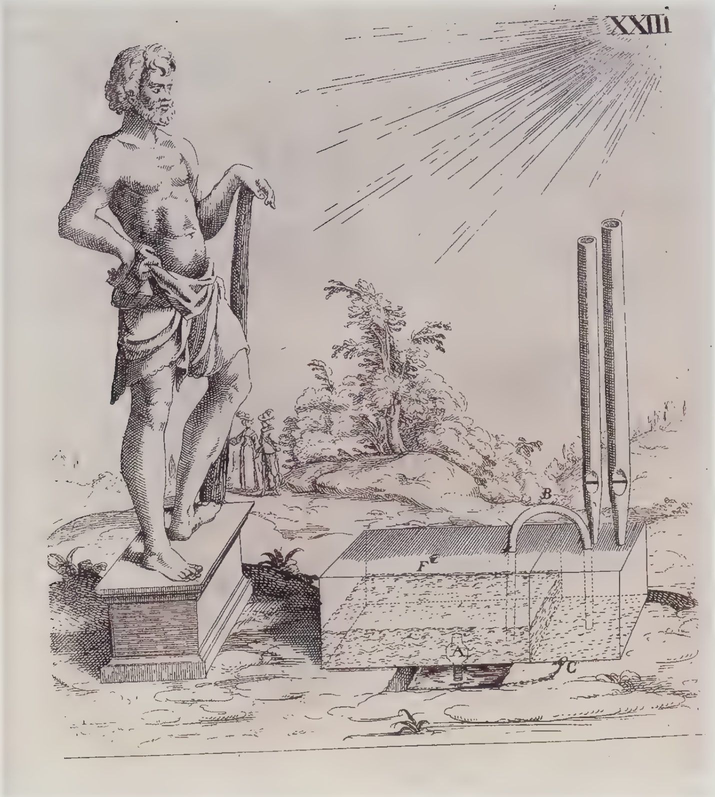
CASSINI, Jacques (1677-1756). "De la grandeur et de la figure de la terre." In: *Suite des memoires de l'Academie Royal des Sciences. Année MDCCXVIII*. Paris: Imprimerie Royale, 1720 [i.e. 1722]. 4° (242 x 182 mm). 15 folding engraved plates. (Lacking frontispiece and 5 maps, some minor browning and spotting.) Modern calf antique; cloth folding case. FIRST EDITION of the official account of his geodetic survey in which "he confirmeed his support for the hypothesis of the elongation of the terrestrial ellipsoid and oppposed that of its flattening, which was defended by the supporters of Newton and Huygens" (DSB). Norman 412. — César François CASSINI DE THURY (1714-1784). *La meridienne de l'Observatoire Royal de Paris*. Paris: Hippolyte-Louis Guerin and Jacques Guerin, 1744. 4/so (253 x 194 mm). 14 folding engraved plates, including 5 maps. Contemporary mottled calf, spine gilt (joints starting); cloth folding case. *Provenance*: Joseph Marie Lemoine D'Essoies (1751-1816), mathematician and geographer (large engraved bookplate); Charles Fournerat (inscription on above bookplate: "Ex libris Caroli Fournerat," and his extensive notations on front flyleaf). FIRST EDITION. In this treatise, Cassini de Thury "corrected his father's work to conform to the Newtonian view, using new measurements of the Paris meridan undertaken in 1739-1740" (Norman 413). — César François CASSINI DE THURY. *Description géométrique de la France*. Paris: J. Ch. Desaint, 1783. Large folding engraved map after Maraldi and Cassini, by d'Heulland (dated 1744). (Some minor browning.) Contemporary mottled calf gilt; cloth folding case. *Provenance*: "Dhombres" (ink stamp on title). FIRST EDITION of Cassini de Thury's final work, a geometric description of France. The map shows the meridian of the Royal Observatory, its perpendicular, and the principal triangles, constructed on 17 bases. See Tooley, pp. 107 and 418; Norman 414. (3)

Estimate: $1,500-2,500

355

CASTELLANO, Pierre (1585-1632). *Vitae illustrium medicorum qui toto orbe, ad haec usque tempora floruerunt*. Antwerp: Willem van Tongris, 1618. 8° (178 x 100 mm). Contemporary vellum, spine ink lettered. *Provenance:* Wellcome Library (withdrawal stamp on verso of title). FIRST EDITION, with printed date altered in manuscript from 1617 to 1618. Castellano's *Lives of illustrious physicians* is arranged in chronological order. The entries often contain bibliographical as well as biographical information. NLM/Krivatsy 2215; Osler 6623; Waller 15849; Norman 415.

Estimate: $600-800



357

○356

CASTRO, Rodericus (1546-1627). *Medicus-politicus: sive de officiis medico-politicis tractatus...* Hamburg: Froben, 1614.

4° (197 x 161 mm). (Minor worming at end.) Contemporary calf, gilt (some wear to spine).

FIRST EDITION. One of the first "modern" works on medical ethics. It includes chapters on problems in forensic medicine, e.g. the examination of injuries, virginity, impotence, signs of poisoning and the examination of slaves. Garrison-Morton 1759; NLM/Krivatsy 2291; Waller 1821; Norman 416.

Estimate: $1,000-1,500

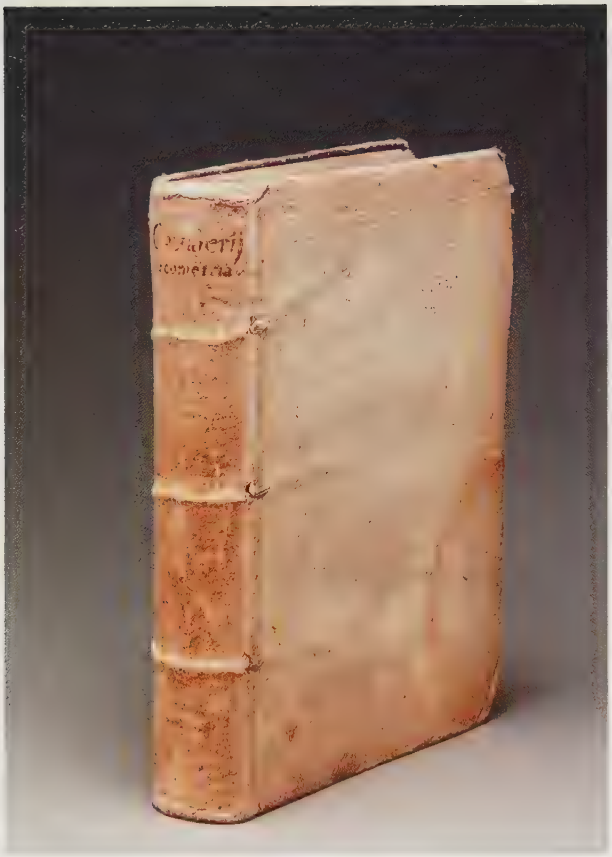
357

CAUS, Isaac de (fl. 1644). *New and rare inventions of water-works shewing the easiest waies to raise water higher than the spring*. Translated from French into English by John Leak. London: Joseph Moxon, 1659.

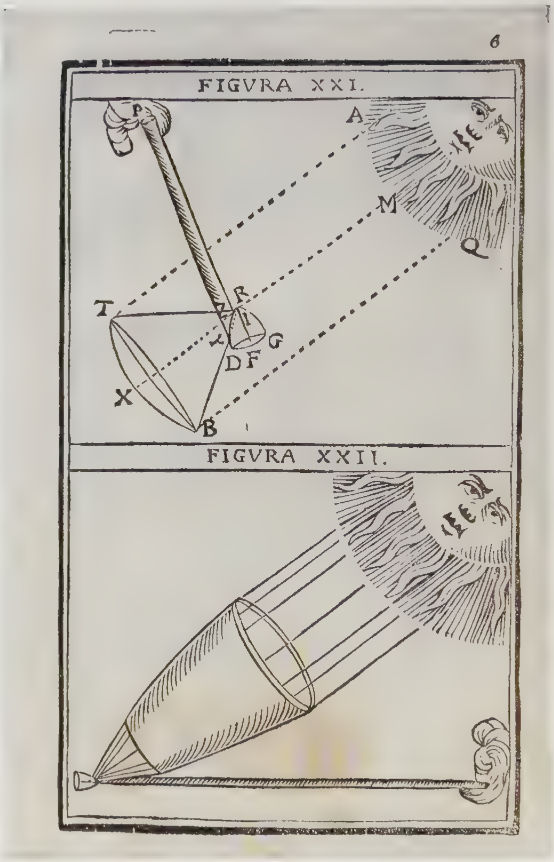
2° (343 x 223 mm). Engraved architectural title (Johnson 64), 26 numbered engraved plates, numerous woodcuts in text, woodcut initials, type ornament headpieces (foremargin of title irregular due to paper flaw, repaired marginal tear to plate 9 just catching image.) Contemporary calf over pasteboard (rebacked, covers rubbed). *Provenance*: John Cope (18th-century engraved armorial bookplate and signature with note of price); C. E. Kenney (booklabel).

FIRST ENGLISH EDITION, a translation of the *Nouvelle invention de lever l'eau* (London: Moxon, 1644), illustrated with the same plates. Isaac Caus's text and illustrations were adapted from Salomon de Caus's *Les raisons des forces mouvantes avec diverses machines* (Frankfurt 1615), an important work for the development of technology and particularly that of the steam engine. Architect and engineer to the Elector Palatine in Heidelberg, Caus (1576-1626) was a pioneer in the construction of life-sized automata, several of which are illustrated here. The present treatise also includes descriptions of a fire engine, various pumps, several types of musical organs, and a sluice. Cf. Thorndike VII, pp. 592-593; Wellcome II, p.315; Wing C-1527; Norman 417.

Estimate: $2,500-3,500



359



358

›358

CAVALIERI, Bonaventura (ca. 1598-1647). *Lo specchio ustorio overo trattato delle settioni coniche.* Bologna: Clemente Ferroni, 1632.

4° (215 x 140 mm). With the final leaf "Avvertimento al Libraro." 10 woodcut plates at end. Contemporary limp vellum. *Provenance*: Astonedi Monte Vecchio, 1663 (inscription on title-page).

FIRST EDITION of Cavalieri's first work. In this work on conics he provides some interesting historical data on the origin of the theory of the conics among the Greeks, which according to Cavalieri, can be found in the gnomonic requirements. *Lo specchio ustorio* ("The Burning Glass") also contains Cavalieri's theory of conics with applications to optics and acoustics, including the idea for the reflecting telescope—an invention he is sometimes credited with first discovering. Riccardi I, 323; Norman 418

Estimate: $2,000-3,000

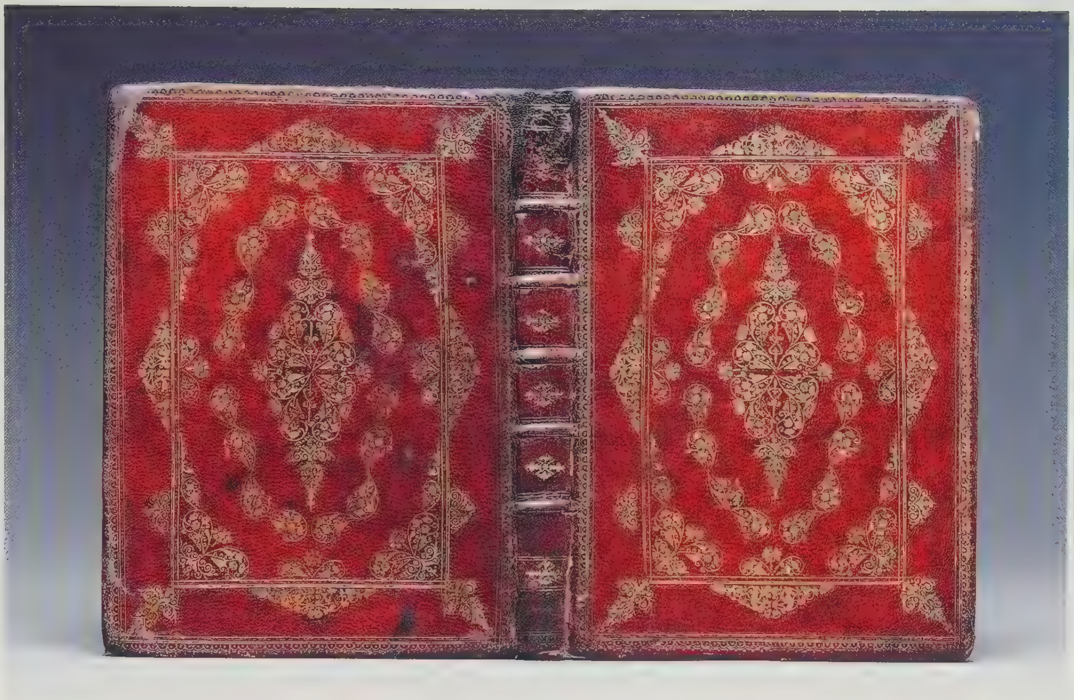
›359

CAVALIERI, Bonaventura (ca. 1598-1647). *Geometria indivisibilibus continuorum nova quadam ratione promota.* Bologna: Typographia de Duciis, 1653.

4° (233 x 168 mm). Numerous diagrams in text. (Minor light browning to some leaves.) Contemporary limp boards. *Provenance*: FO (early letter stamps on title-page).

Second edition of Cavalieri's principal work. First published in 1635, the *Geometria* elaborates his method of indivisibles, or infinitesmals. It constitutes the first textbook on integration methods, including "Cavalieri's principle," a method of calculating areas and volumes of complex shapes. It is important as the first systematic exposition of all previous work leading to the invention of the calculus. FINE COPY OF A RARE WORK. Riccardi I, 325; Sotheran I, 735; Norman 419.

Estimate: $3,000-4,000



361

○360

CAVENDISH, Henry (1731-1810). "Experiments on air." In: *Philosophical transactions.* Vol. 74, pp. 119-153. London: Lockyer Davis and Peter Elmsly, 1784. 4° (228 x 174 mm). Disbound. FIRST APPEARANCE of Cavendish's experimental prove that hydrogen ("inflammable air") and oxygen ("dephlogisticated air") when mixed in the proper proportions and fired, produce their own weight in water. Dibner *Heralds of Science* 42; Partington III, pp 329-335; Norman 420. — CAVENDISH. *On the Conversion of a mixture of dephlogisticated and phlogisticated Air into Nitrous Acid, by the Electric Spark.* Offprint from: *Philosophical Transactions.* N.p. n.d. [London, 1788]. 4° (240 x 199 mm). Disbound. *Provenance*: Dr. Charles Singer (bookplate). FIRST SEPARATE APPEARANCE. Partington III, pp. 338-343; Norman 421. — CAVENDISH. "Experiments to determine the Density of the Earth." In: *Philosophical Transactions* 88, part I, pp. 469-526. London: Peter Elmsly, 1798. 4° (274 x 215 mm). 2 engraved folding plates. Contemporary calf, spine elaborately gilt (joints cracked). *Provenance*: Johannes Douglas (bookplate). FIRST APPEARANCE. Norman 422. [*Bound with*:] Benjamin THOMPSON, Count Rumford. "An Inquiry concerning the Source of the Heat which is excited by Friction." In: *Philosophical Transactions* 88, part I, pp. 80-102. London: Peter Elmsly, 1798. Engraved folding plate. FIRST APPEARANCE. Dibner *Heralds of Science* 151; Norman 2073.

(3)

Estimate: $600-800

○361

CHARLETON, Walter (1619-1707). *Natural History of Nutrition, Life and Voluntary Motion. Containing all the new discoveries of Anatomist's, and most probable opinions of Physicians, concerning the oeconomie of Human Nature...* London: Henry Herringman, 1659.

4° (215 x 158 mm., large paper copy). 6 engraved diagrams in text. Contemporary red goatskin elaborately gilt, sides tooled with an outer border of semi-circles, gilt panel with decoration in each corner and lozenge-shaped centre-piece of strawberry volutes and flowers, spine in six compartments gilt, edges gilt (head of spine and joints professionally repaired). *Provenance*: Kenneth Garth Huston (bookplate).

FIRST EDITION. Charleton was an unusually gifted physician, zoologist, and archeologist who studied physics, theology, and natural history. He was one of the founders of the Royal Society and later served as it's president. The above is the first English textbook on physiology based on mechanical philosophy. Possibly a presentation binding. NLM/Krivatsy 2383; Wing C-3684; Norman 459.

Estimate: $3,000-4,000

ↄ362

CHARLETON, Walter (1619-1707). *Exercitationes pathologicae*. London: Thomas Newcomb for John Martin, Jac. Allestry, & Thomas Dicas, 1661.

4° (187 x 146 mm). Contemporary limp vellum. *Provenance*: early ownership inscription dated 1664 deleted on front free endpaper; some early marginalia; Arenberg family (Nordkirchen bookplate).

FIRST EDITION of Charleton's hypothetical discussion of the causes of diseases. "It also deals with the problem of abnormal embryonic development, which Charleton attempted to explain in terms of atomism, vitalism and Harvey's theory of epigensis" (Norman). NLM/Krivatsy 2380; Wing C-3673; Norman 460.

[*With*:]

CHARLETON, Walter. *Onomasticon zoicon ... cui accedunt mantissa anatomica; et quaedam de variis fossilium generibus*. London: Jacob Allestry, 1668.

4° (198 x 159 mm). 9 engraved plates, 6 folding (two with small tears), 3 engraved illustrations in text. Contemporary mottled calf (dried and worn at edges). *Provenance*: Thomas Helwes(?) (signature on title-page); Jonathan Chetwood (bookplate).

FIRST EDITION. Charleton's work gives a list of all the known animals at that time by their respective English, Latin, and Greek names. Of interest in the history of ornitholgy, it is the first work by an English author to add illustrations to a list of birds. Garrison-Morton 292; McGill-Wood 257; NLM/Krivatsy 2392; Wellcome II, p.329; Wing C-3688; Norman 461. (2)

Estimate: $1,000-1,500

ↄ363

CHAUVIN, Étienne (1640-1725). *Lexicon rationale sive thesaurus philosophicus ordine alphabetico digestus*. Rotterdam: Pieter vander Slaart, 1692.

2° (335 x 227 mm). Engraved frontispiece by Adriaan Schoonebeek, engraved portrait of Chauvin, 30 folding engraved plates. (Some minor marginal soiling to plates.) Contemporary Dutch blindstamped vellum (lower spine repaired, some other small defects, covers bowed). *Provenance*: early ownership inscription dated 1696 deleted on title-page; Marinus Wilffing, Franciscan Minim, for the use of the convent library at Toul (inscription); ownership initials and date 1696 erased from front cover; title hand-lettered on front cover (and the date "1795").

FIRST EDITION. The *Lexicon rationale* is indicative of the marked shift toward rational and scientific thought that took place over the course of the seventeenth century. Chauvin was a follower of Descartes and he discusses physical and astronomical phenomena in Cartesian terms. Unlike earlier philosophical encyclopedias, the *Lexicon* contained no entries discussing magic, divination or alchemy. Thorndike VIII, pp. 299-301; Wellcome II, p. 333; Norman 463.

Estimate: $800-1,200

○364

[CHEMISTRY]. — MACQUER, Pierre Joseph (1718-1784). *Elemens de chymie theorique.* Paris: J.T. Herissant, 1749. 12° (166 x 98 mm). 4 engraved folding plates (minor marginal dampstaining.) Contemporary mottled calf (upper joint split). *Provenance*: Count St. Anthoine, gift to Huggens's College (bookplate). FIRST EDITION. Duveen p. 376; Partington III, pp. 80-90; Norman 1411. — MACQUER. *Elemens de chymie-pratique.* Paris: J.T. Herissant, 1751. 2 volumes, 12° (167 x 97 mm). Engraved vignettes on titles. Contemporary mottled calf. *Provenance*: Koninklyke Bibliotheek te's Hage (old ink stamp and withdrawal stamp on titles). FIRST EDITION. Duveen, p. 376; Partington III, pp. 80-90; Norman 1412. — MACQUER. *Dictionnaire de chymie, contenant la théorie & la pratique de cette science...* Paris: Lacombe, 1766. 2 volumes, 8° (174 x 108 mm). Contemporary mottled sheep. Pirated reprint of the first edition. Duveen, p. 377; Partington III, pp. 80-90; Norman 1413. — SOCIETE D'ARCUEIL. *Memoires de physique et chimie.* Paris: J.J. Bernard, 1807-1817. 3 volumes (all published), 8° (198 x 123 mm). 3 engraved plates and folding tables. Contemporary olive green calf with central gilt emblem "Academié de Paris Prix du Concours Général" on each cover, g.e. FIRST EDITION. Duveen pp. 25-26; Partington III, p. 499; Norman 1971.

(8)

Estimate: $1,200-1,800

○365

CHESELDEN, William (1688-1752). *The Anatomy of the Humane Body.* London: N. Cliff and D. Jackson, 1713.

8° (200 x 121 mm). 23 engraved plates, including 2 folding plates. Contemporary panelled calf (light rubbing to joints and corners). *Provenance:* "GOM" (bookplate).

FIRST EDITION. The above work went through 13 editions and became a standard textbook. Garrison-Morton 390; *Heirs of Hippocrates* 810; Wellcome II, p. 335; Norman 464.

Estimate: $800-1,200

○366

CHESELDEN, William (1688-1752). *A Treatise on the High Operation for the Stone.* London: Osborn, 1723.

8° (221 x 136 mm). 17 engraved plates. Contemporary calf (rebacked, corners repaired). *Provenance:* J. Crosse (signature on title).

FIRST EDITION. "In this monograph... Cheselden reports on nine patients he operated on for vesical calculi by the suprapublic route. Eight of the patients survived the operation and one died later from an unrelated illness" (*Heirs of Hippocrates*). Garrison-Morton 4282; *Heirs of Hippocrates* 813; Waller 1939; Wellcome II, p. 335; Norman 465.

Estimate: $1,000-1,500

›367

CHESELDEN, William (1688-1752). *Osteographia, or the Anatomy of the Bones.* London: [William Bowyer for the author?], 1733.

2° (505 x 350 mm). Engraved frontispiece, engraved title with royal arms on verso, engraved dedication with engraved deer skeleton on verso, 25 leaves with 29 engravings (vignettes and head-pieces) in text and 111 (of 112), engraved plates comprising 2 sets of 56 numbered engraved plates (lacks plate 56 of first set) by Jacob Schijnvoet and Gerard van der Gucht. Contemporary speckled calf, gilt corner pieces (rebacked, corners repaired).

Provenance: Hans Sloane (engraved bookplate on front pastedown).

FIRST EDITION, with title vignette and engraving on verso of the second plate LVI printed in red. "THE MOST FAMOUS AND AMONG THE MOST ARTISTICALLY INTERESTING OSTEOLOGICAL ATLASES EVER PRODUCED" (Norman). Printed on thick paper and large folio format allowing natural-size illustrations of the separate human bones. The great accuracy of the large plates of adult, fetal and pathological bones lies both in Cheselden's innovative use of the camera obscura, which he was the first to employ for the purpose of book illustration and in his intervention in the drawing and engraving processes. Complete copies of this work are rare. 400 copies were printed, but only a small number of books were sold to subscribers. To make up for the financial loss, many of the sets were broken up, so the plates could be sold individually. Choulant p. 261; Garrison-Morton 395; *Heirs of Hippocrates* 814; Russell 173; Waller 1941; Wellcome II, p. 335; Norman 466.

Estimate: $4,000-6,000

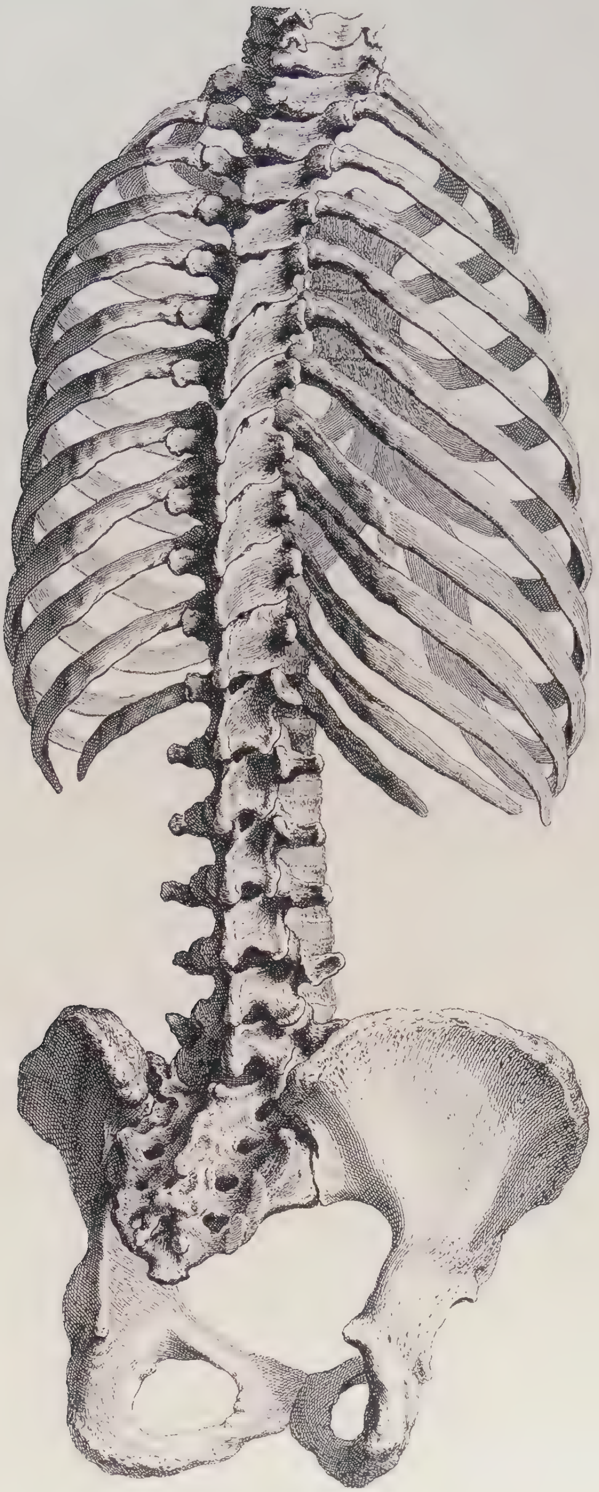
›368

CHEYNE, John (1777-1836). *An essay on hydrocephalus acutus, or dropsy in the brain.* Edinburgh: for Mundell, Doig, and Stephenson; London: J. Murray, 1808. 8° (245 x 143 mm). Modern quarter morocco, gilt-lettered spine, cloth boards. *Provenance*: W.S.Miles M.D (inscription); Medical Society of London (stamp); Library of the Wellcome Institute for the History of Medicine (bookplate and withdrawal stamp). FIRST EDITION. Garrison-Morton 4635; Wellcome II, p. 339; Norman 472 — CHEYNE. *A case of apoplexy, in which the fleshy part of the heart was converted into fat,* in: *The Dublin Hospital reports and communications in medicine and surgery.* Dublin: Graisberry and Campbell for Hodges and M'Arthur, and others, 1818. 8° (211 x 131 mm). 5 engraved plates (short tear on C4, some offsetting from plates, occasional spotting). Contemporary half calf, marbled boards (very worn, broken). *Provenance*: Edinburgh Royal Medical Society (early inscription on title-page and later stamps); some pencil marginalia. FIRST APPEARANCE. Garrison-Morton 2743; Norman 473.

(2)

Estimate: $800-1,200

XX



Veduta della Fabbrica, Piazza, e Annessi del Regio Arcispedale di S. Maria Nuova di Firenze

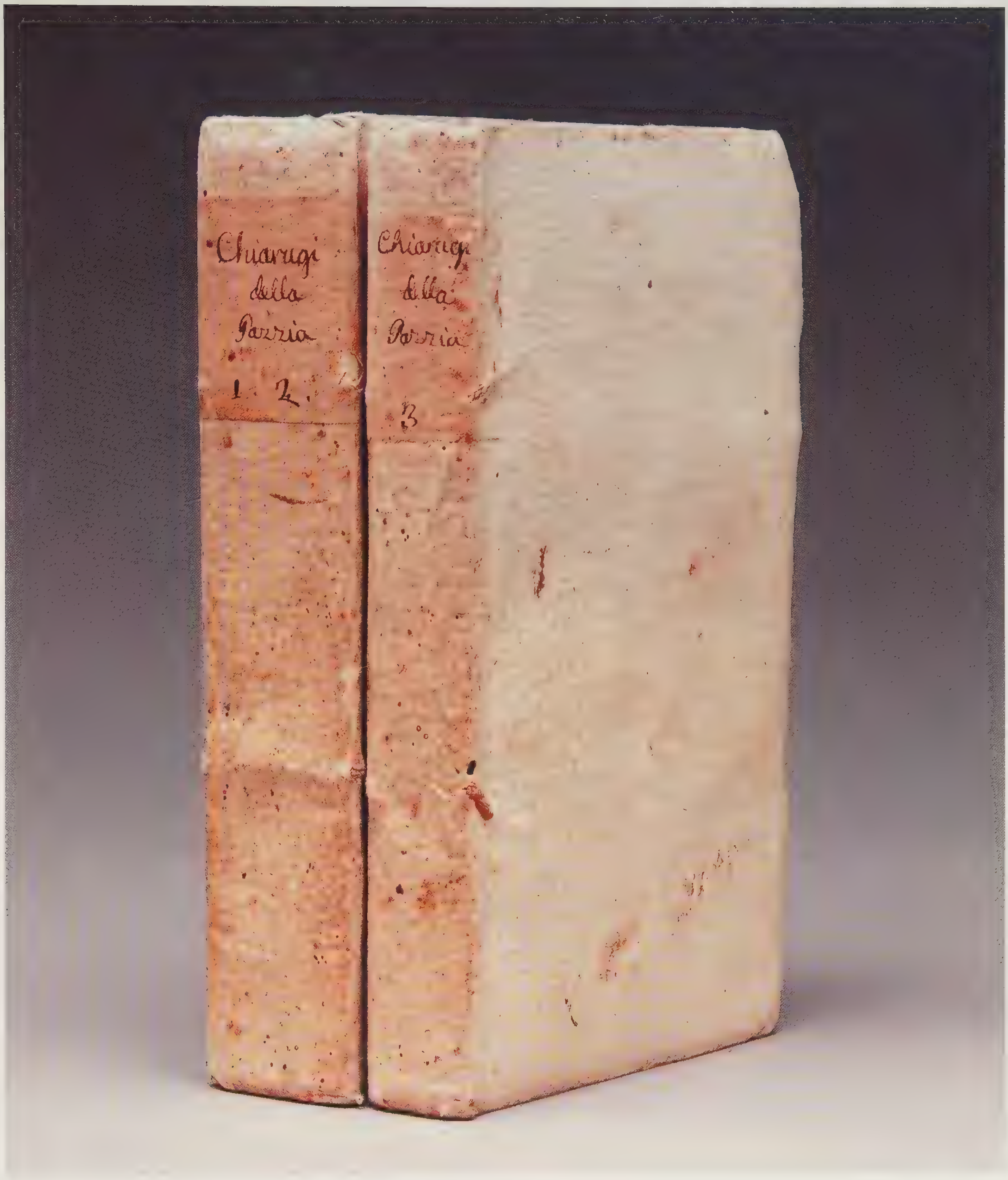
369

[CHIARUGI, Vincenzo (1759-1820)]. *Regolamento dei regi spedali di Santa Maria Nuova e di Bonifazio*. Florence: Gaetano Cambiagi, 1789.

4° (263 x 198 mm). Engraved frontispiece by Giovanni Battista Cecchi after Eg. Io. Oricellarius, engraved title-page vignette, 10 folding engraved plates by Cecchi and Benedetto Eredi after Santi Pacini, Carlo Cecci, Luigi Mulinelli, and Loranzo Martelli; 1 folding typographical table; folding flaps pasted to leaves 4/2v and 4/3r. 19th-century half vellum, marbled sides.

In 1774 Grand Duke Peter Leopold of Tuscany promulgated Europe's first law concerning the hospitalization of persons recognized as being insane, and several years later he undertook to build a new hospital for the mentally ill. In 1875 the young physician Vincenzo Chiarugi, who had studied at the University of Pisa and then at the hospital of Santa Maria Novella in Florence, was given the responsibility for planning the new hospital of S. Bonifacio, which opened in 1788. The following year, the regulations of the hospital were published, together with the statues of the hospital of Santa Maria Novella. The statutues reflect Chiarugi's pioneering attitude towards the treatment of the insane: "A detailed history was required for each patient admitted to the hospital. The hospital was built to meet high hygienic standards, men were separated from women, and the rooms and furniture offered full protection to the patients... under no circumstances could force be used on patients, and the only methods of restriction allowed were strait jackets and strips of reinforced cotton, in order to prevent impairment in the patient's circulation... [It was] absolutely forbidden to make patients work for the hospital, except by a special prescription of the physician, in cases where certain activities [were] indicated as a form of therapy or relief" (G. Mora, 'Vincenzo Chiarugi,' in *Journal of the History of Medicine* 14, 1959, p. 431). Chiarugi's experiences at S. Bonifacio formed the basis for his *Della pazzia in genere e in specie*, published in 1793-1794, in which he analyzed the nature of insanity and the treatment of the insane (see lot 370). Garrison-Morton 4020.2; Norman 474.

Estimate: $1,500-2,500

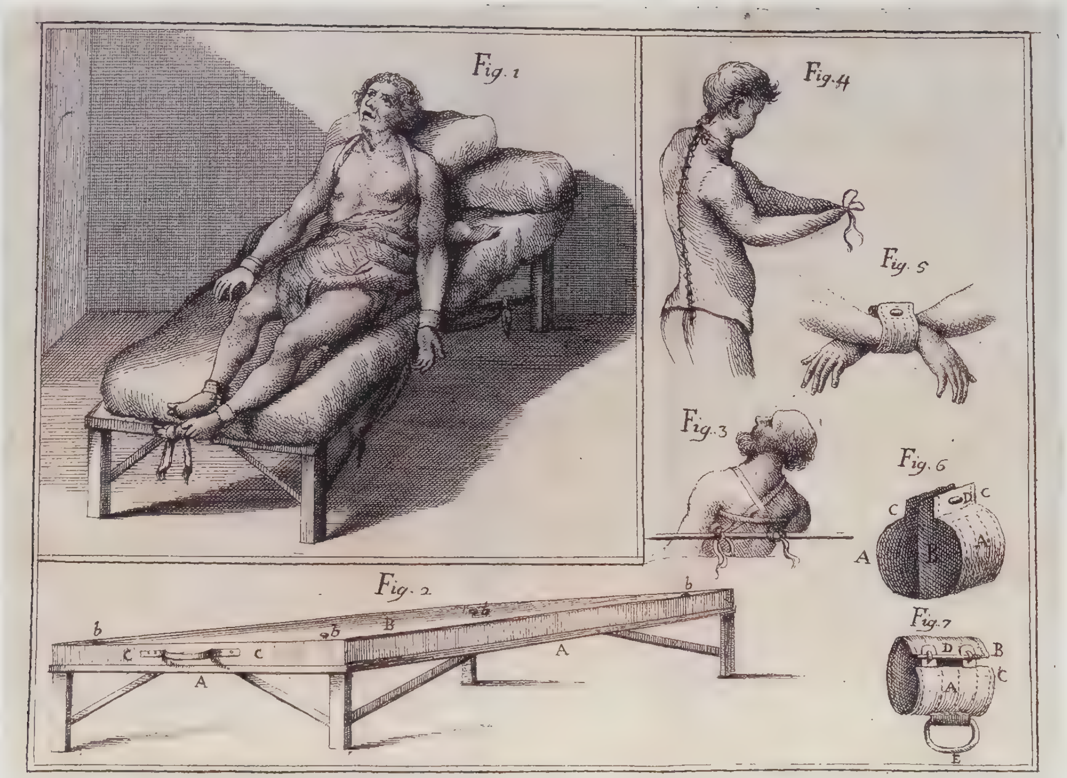


ɔ370

CHIARUGI, Vincenzo (1759-1820). *Della pazzia in genere, e in specie tratto medico-analitico con una centuria di osservazioni.* Florence: Luigi Carlieri, 1793-1794.

3 volumes bound in 2, 8° (175 x 110 mm). Cancel slip with letter "N" pasted over incorrect signature "O" on N1 in vol. 1. Woodcut title-page vignettes, 2 folding engraved plates. Contemporary limp boards; modern morocco-backed box. *Provenance*: armorial ink stamps

continued



incorporating a tree (two on each title page); "Dr. Fieoli, 1824" (signatures on endleaves).

FIRST EDITION of perhaps the greatest rarity in the history of psychiatric literature. Based on his practical experience at the hospital of S. Bonifazio in Florence (see lot 369), Chiarugi discussed the causes and treatment of insanity, which he divided into melancholia, mania and amentia. Although this classification was influenced by William Cullen (see lot 392), Chiarugi's work and the reforms he instituted at S. Bonifacio represent "the first application of the principles of psychiatric treatment which are at the basis of psychiatry even today" (G. Mora, 'Vincenzo Chiarugi,' in *Journal of the History of Medicine* 14, 1959, p. 431). In addition to urging safe and healthful surroundings and little or no restraint for the mentally ill, Chiarugi advocated respect for insane individuals as persons, pleasant as well as authoritative behavior on the part of the physician, and the use of tact and understanding in an effort to lead patients back to truth and reason.

Chiarugi's reforms anticipated those of Pinel, who began his work with the insane only in 1793, the year Chiarugi's treatise on insanity was published. Although Pinel knew, and denigrated, Chiarugi's work, the theory and practice advocated in his *Traité medico-philosophique sur l'aliénation mentale*, published in 1801 (see lot 721), differ little from those developed at S. Bonifacio from 1788 on. Garrison-Morton 4921; NLM/Blake, p. 87; Norman 475.

Estimate: $20,000-30,000

○371

CHIARUGI, Vincenzo (1759-1820). *Abhandlung über den Wahnsinn überhaupt und inbesondere, nebst einer Centurie von Beobachtungen*. Leipzig: Georg David Meyer, 1795.

3 volumes bound in 1, 8° (302 x 114 mm). 2 folding engraved plates. Contemporary blue paper boards (worn). *Provenance*: Dr. Hager (signature on title page); Altenburg, Medico-Chirurgische Bibliothek (inkstamp on title page).

An abridged German version of *Delle pazzia in genere et in specie* (see lot 370). This was the only contemporary translation of Chiarugi's treatise on insanity. *Heirs of Hippocrates* 1164; NLM/Blake p. 87; Waller 1954; Norman 476.

Estimate: $800-1,200

○372

CHIARUGI, Vincenzo (1759-1820). *Saggio teorico-pratico sulle malattie cutanee sordide osservate nel regio spedale di Bonifazio di Firenze*. Florence: Pietro Allegrini, 1799. 8° (214 x 130 mm). Contemporary gray wrappers (rebacked in vellum). A pioneer work on dermatology, discussing skin diseases in general, their causes, symptoms and treatment, and describing particular skin diseases. NLM/Blake p. 87; Norman 477.

[*With*]:

CHIARUGI, Vincenzo. *Istoria delle malattie afrodisiache e di quelle malattie ostinate e non guarite dall'arte medico-chirurgica venute nel regio spedale di Bonifazio negli anni 1802 e 1803*. Florence: Stamperìa del Giglio, 1804. 4° (205 x 140 mm). Modern wrappers. This report on chronic disease at the hospital of S. Bonifacio contains contributions by Chiarugi and Paolo Mori Lazzani. Chiarugi discusses the cure of veneral diseases, with reference to cases. RARE. Norman 477.

[*With*]:

CHIARUGI, Vincenzo. *Saggio di richerche sulla pellagra*. Florence: Pietro Allegrini, 1814. 8° (201 x 138 mm). 3 folding engraved plates printed in sepia. Modern stiff paper wrappers. Chiarugi suggested that pellagra, then endemic in Italy, was caused by a diet consisting exclusively of maize, an observation confirmed when it was realized later that the disease is due to dietary deficiency. Waller 1954a; Wellcome II p. 340; Norman 479.

(3)

Estimate: $1,500-2,000

ɔ373

CHLADNI, Ernst Florens Friedrich (1756-1827). *Entdeckungen über die Theorie des Klanges.* Leipzig: Weidmanns Erben und Reich, 1787.

4° (214 x 180 mm., uncut.) 11 engraved plates by Johann Stephan Capieux (light browning and staining, last leave loose.) Contemporary wrappers (rebacked); cloth folding case.

FIRST EDITION. Chladni established acoustics as a science. In his first work he demonstrated the method of sprinkling sand on plates of glass or metal and drawing a bow down their sides to produce a visible vibration pattern called "Chladni figures." Dibner *Heralds of Science* 150; PMM 233a; Sparrow *Milestones of Science* 39; Norman 480.

Estimate: $2,000-3,000

ɔ374

CHLADNI, Ernst Florens Friedrich (1756-1827). *Die Akustik.* Leipzig: Breitkopf and Härtel, 1802.

4° (234 x 198 mm). Engraved portrait title vignette by F.W. Bollinger and 11 engraved plates (light browning throughout.) Late 19th-century half calf and marbled boards (some wear to head of spine). *Provenance:* William Molesworth (bookplate).

FIRST EDITION. "Chladni, professor of physics in Breslau, was the first to reduce the general association between vibration and pitch to a tabular basis and thus to lay the foundation of the modern science of acoustics. His first results were reported in 'New Discoveries in the Theory of Sound,' 1787, and were greatly enlarged in 'Acoustics' 1802" (PMM). PMM 233b; Sparrow *Milestones of Science* 38; Norman 481.

Estimate: $1,000-1,500

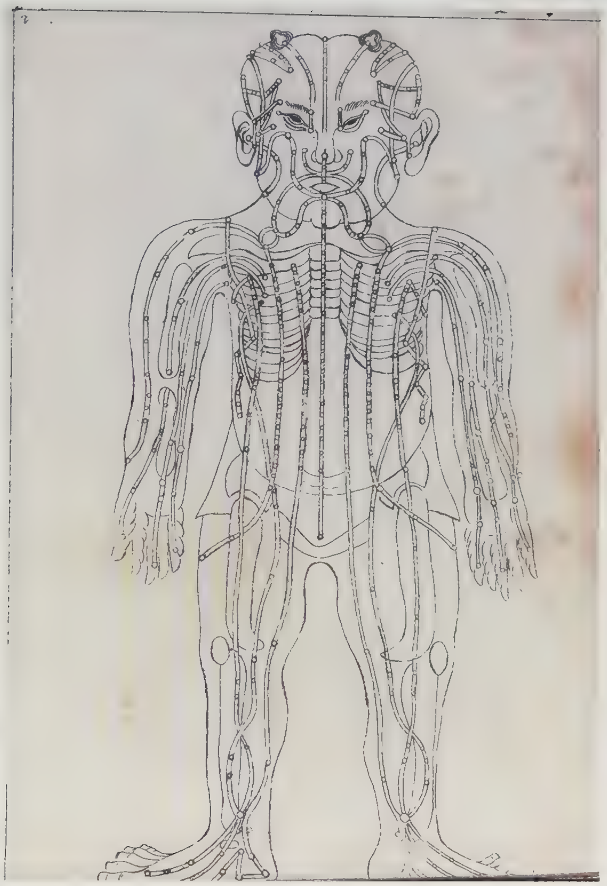
ɔ375

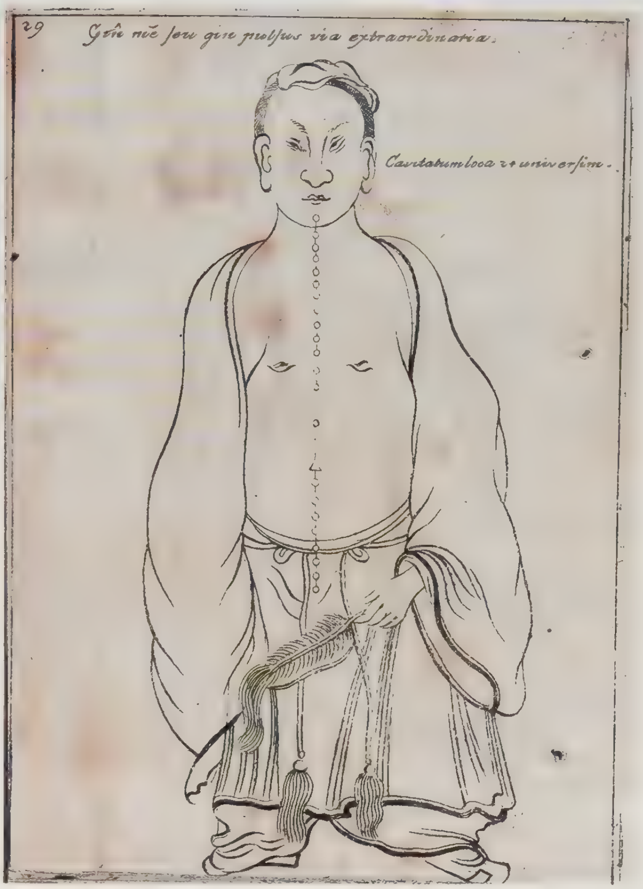
CLEYER, Andreas (1634-1697 or 1698), editor. *Specimen medicinae sinicae, sive opuscula medica ad mentem sinensium.* Translated from the Chinese into Latin by Michael Piotr Boym. Frankfurt: Johann Peter Zubrodt, 1682.

4° (190 x 155 mm). Collation: π^2; A-F^4; a-n^4 o^2; (A)-(G)^4; (a)-(b)^4. 115 leaves (of 116, without (G)4 blank). Title printed in red and black with publisher's engraved device, 30 numbered engraved plates, 72 small text woodcuts representing Chinese symbols of the pulse, 36 small woodcuts representing diseases of the tongue, 1 full-page woodcut of the hands, 2 large cuts of diagrams representing the circulation of the blood, 5 leaves (n2-n4, o1-2) of folding typographic tables. (Repaired tears to title and dedication leaf with loss to 3 letters of the latter, title imprint cropped, cropping to plates occasionally affecting captions or image, small repair to plate 22 catching rule border, scattered light spotting, some browning in parts 2-4.) Late 18th-century boards, edges stained green (joints and extremities rubbed).

Provenance: Ch. Barel (inscription); Dr. E. Friedrich Rhelme [?] (inkstamp); Dr. Flandrin (bookplate dated 1902); Ralph Hermon Major (bookplate).

FIRST EDITION OF THE FIRST ILLUSTRATED WORK ON CHINESE MEDICINE TO BE PUBLISHED IN EUROPE. These Latin translations of a late medieval version of the *Mo chüeh* (Instructions relating to the pulse) and other short texts were the work of the Polish Jesuit Michael Boym (1612-1659). They were published, with no mention of Boym, by Andreas Cleyer, a physician with the Dutch East India Company who served in Java in the 1660s and later in Japan. The




29
Gên mě ſeu gin pulſus via extraordinaria.
Cavitatum loca 24 univerſim.

only earlier printed Western work on Chinese medicine was a short unillustrated collection of Jesuit translations of similar Chinese works entitled *Secrets de la medicine chinoise* (Grenoble 1671). The texts translated here, of which several are by Vam Xo Ho (or Wang Shu-ho), deal primarily with theories relating to the pulse, and the closely related subject of acupuncture is discussed extensively. One chapter gives remedies for various types of disorders of the pulse, while the chapter on materia medica lists and describes 289 plants, with phonetic transcriptions of their Chinese names, and their Latin names where the plants have been identified. The final section contains 36 descriptions of various pathological symptoms as manifested in the appearance of the tongue, illustrated by woodcuts of the tongue with captions describing localized discoloration, etc.

The curious engravings, copied from a Chinese source, probably Chang Chieh-Pin's *Lei ching* (1624) include several anatomical engravings of organs as well as "the first acupuncture charts published in the West; unfortunately, these were dubbed 'anatomical' by Western writers, causing much confusion and misguided criticism" (Norman). A portion of Boym's translation of the section on the pulse was abridged and paraphrased in English in the second volume of John Floyer's *Physician's pulse-watch* (1707-10). Floyer, presumably influenced by Chinese theory, was the first European physician to advocate regular observations of the pulse.

Choulant-Frank, pp. 362-369; Garrison-Morton 6492; NLM/Krivatsy 1734-35; Waller 9107; Wellcome II, p. 359; Norman 489.

Estimate: $8,000-12,000

376

[COCKBURN, William (1669-1739)]. *An Account of The Nature, Causes, Symptoms and Cure of the Distempers that are incident to Seafaring People. With Observations on the Diet of the Sea-Men in His Majesty's Navy...By W.C.* London: for Hugh Newman, 1696.

12° (148 x 95 mm). Contemporary English blind-ruled calf (joints lightly rubbed). *Provenance*: F. Nicholls (early ownership inscription on front free endpaper), possibly Dr. Frank Nicholls (1669-1778), famous for his studies of minute anatomy (see DNB); red ink monogram stamp S on front free endpaper.

RARE FIRST EDITION OF ONE OF THE FIRST ENGLISH BOOKS ON NAVAL MEDICINE. In this work Cockburn discusses various sicknesses afflicting seamen he encountered during his two years spent as a ship's doctor. Although he did note that fresh vegetables were effective in curing those seamen affliced with scurvy, he argued that the disease attacked the idle and therefore recommends exercise as the best preventative. Cockburn became famous for his secret remedy for dysentery. Garrison-Morton 2147; Wing C-4815; Norman 492.

Estimate: $2,500-3,500

377

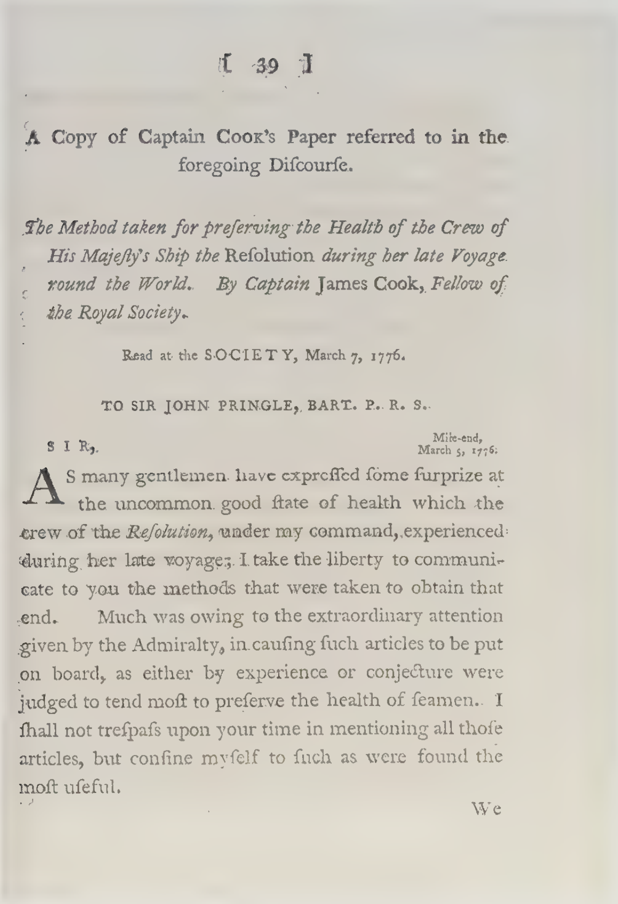
COLLINS, Samuel (1618-1710). *A systeme of Anatomy, treating of the Body of Man, Beasts, Birds, Fish, Insects, and Plants.* London: Thomas Newcomb, 1685.

2 volumes, 2° (370 x 248 mm). Titles printed in red and black. Engraved frontispiece of the Theatrum Cutlerianum, portrait of Collins by Willam Faithorne (1616-1691) mounted on verso (according to Russell some copies have these printed on the recto and verso of a single leaf) in first volume; 73 engraved plates in second volume (some copies contain an additional plate inserted between pp. 934-935 in vol. 2, not present in this copy). (Some very pale and minor marginal dampstaining at end of vol. 1.) Late 17th- or early 18th-century English red morocco, covers gilt with three panels, the outer a double fillet, the middle panel a single fillet with floral and foliate tools at corners and at center of each side, the inner panel a roll within a triple fillet with floral and foliate tools at center of each side, spines in seven compartments with six raised bands, gilt-lettered in one, a repeated gilt-tooled panel in the rest, edges gilt (joints and extremities rubbed, a few scrapes). *Provenance*: Thomas Caren (armorial bookplate in each volume).

FIRST EDITION of "the most elaborate English treatise on comparative anatomy of its day, dealing at length with the anatomical structures of man an 115 other animal species" (Norman). A VERY FINE SET. Cole, *Comparative anatomy*, pp. 156-74; NLM/Krivatsy 2610; Russell 194; Wellcome II, p. 373; Wing C-5387; Norman 498.

(2)

Estimate: $2,500-3,500



[39]

A Copy of Captain Cook's Paper referred to in the foregoing Diſcourſe.

The Method taken for preſerving the Health of the Crew of His Majeſty's Ship the Reſolution *during her late Voyage round the World. By Captain* James Cook, *Fellow of the Royal Society.*

Read at the SOCIETY, March 7, 1776.

TO SIR JOHN PRINGLE, BART. P. R. S.

SIR,

Mile-end,
March 5, 1776.

AS many gentlemen have expreſſed ſome ſurprize at the uncommon good ſtate of health which the crew of the *Reſolution*, under my command, experienced during her late voyage; I take the liberty to communicate to you the methods that were taken to obtain that end. Much was owing to the extraordinary attention given by the Admiralty, in cauſing ſuch articles to be put on board, as either by experience or conjecture were judged to tend moſt to preſerve the health of ſeamen. I ſhall not treſpaſs upon your time in mentioning all thoſe articles, but confine myſelf to ſuch as were found the moſt uſeful.

We

0378

[COOK, JAMES (1728-1779)]. PRINGLE, *Sir* John (1707-1782). *A Discourse upon some late improvements of the Means for Preserving the Health of Mariners. Delivered at the Anniversary Meeting of the Royal Society, November 30, 1776.* London: for the Royal Society, 1776.

4° (221 x 167 mm). Woodcut title device and headpiece. Contemporary mottled calf, spine gilt (front joint cracked); quarter morocco folding case. *Provenance*: Thomas W. Streeter (bookplate, sale, Sotheby's, 24 April 1968, lot 2410).

FIRST EDITION. In Pringle's discourse on preserving the health of mariner's he includes the first printing of Captain Cook's important paper entitled: "The Method taken for preserving the Health of the Crew of His Majesty's Ship the *Resolution* during her late Voyage round the World." In this paper, which Cook communicated to Pringle, President of the Royal Society, Cook describes the supplies carried on the voyage and his maintenance of the cleanliness of his ship and crew. It was included by Pringle in his discourse commemorating Cook's receipt of the Copley medal. "Following the scurvy-preventing suggestions of James Lind [see lot 619], Cook lost only one man to disease on his second voyage from 1768-1771" (Garrison-Morton 3714). VERY FINE COPY. Garrsion-Morton 2156 and 3714; Norman 508.

[*Bound chronologically with*:]

PRINGLE, John. *A Discourse on the Different Kinds of Air.* London: for The Royal Society, 1774 — John PRINGLE. *A Discourse on the Torpedo.* London: for The Royal Society, 1775 — John PRINGLE. *A Discourse on the Attraction of Mountains.* London: for The Royal Society, 1775 — John PRINGLE. *A Discourse on ... the Reflecting Telescope.* London: for The Royal Society, 1778 — John PRINGLE. *A Discourse on the Theory of Gunnery.* London: for The Royal Society, 1778. All FIRST EDITIONS.

Estimate: $7,000-9,000

379

COOK, James (1728-1779). "The Method taken for preserving the Health of the Crew of his Majesty's Ship the *Resolution* during her late Voyage round the World." In: *Philosophical Transactions of the Royal Society*. Vol. LXVI. Part I. London: W. Bowyer and J. Nichols for Lockyer Davis, 1776.

4° (223 x 171 mm). 7 folding engraved plates, some woodcut illustrations in text. (Some minor foxing and light dampstaining.) 18th-century half calf, speckled boards (modern calf antique rebacking, preserving early lettering pieces).

Reprinting of Cook's famous paper communicated to John Pringle in March 1776 (see lot 378), in which he described the precaustions he took against scurvy, as prescribed by the Admiralty, during his voyage round the world of 1772-75. "These included feeding the sailors with such antiscorbutics as saurkraut, fresh greens and citrus fruits, as suggested by Lind; guarding the sailors from unnecessary exposure and fatigue; and keeping the ship clean, dry and well-aired" (Norman). See Garrison-Morton 3714; Norman 507.

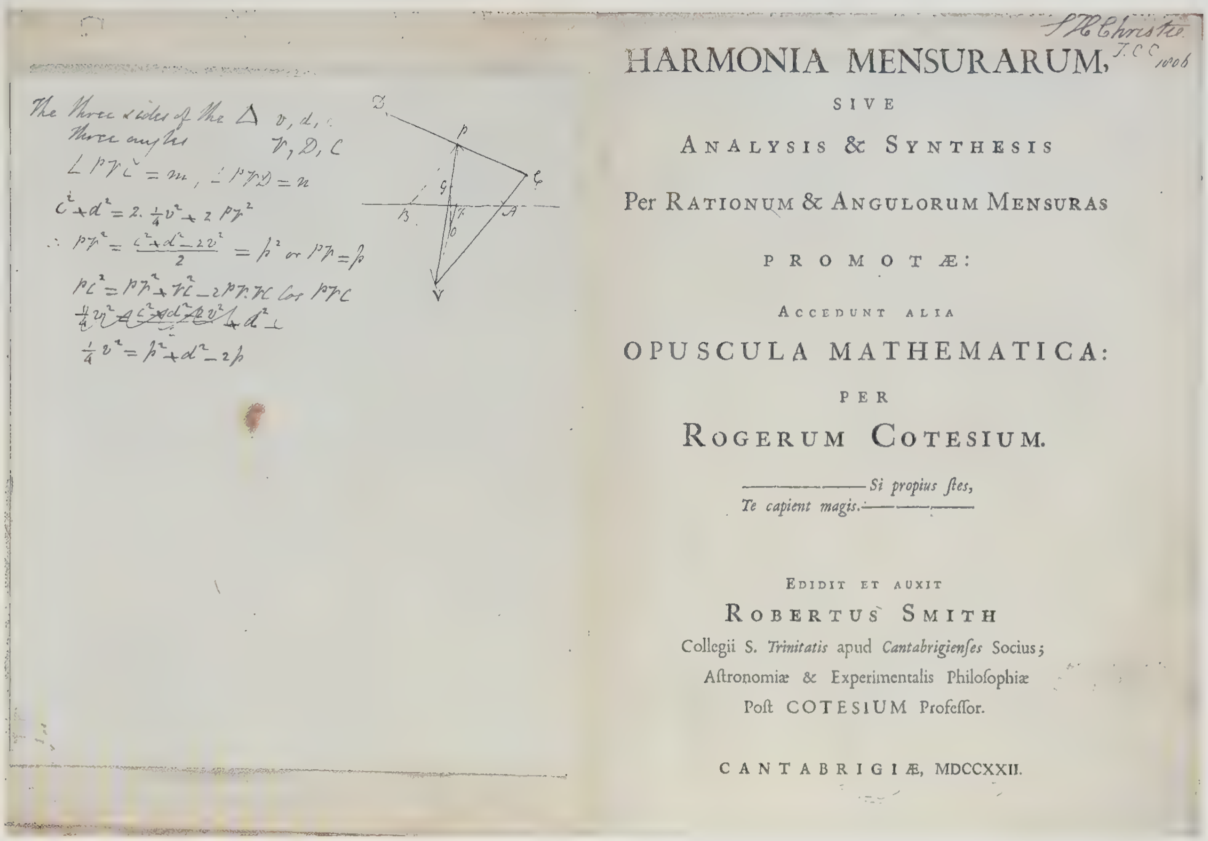
Estimate: $700-900

380

[COSMOLOGY]. — [WILKINS, John (1614-1672)]. *A discourse concerning a new world & another planet.* London: John Maynard, 1640. 2 vols. in one, 8° (163 x 110mm). Engraved title by W. Marshall (showing Copernicus and Kepler, with a diagram of the solar system), woodcut diagrams and illustrations (soiled, edges browned). Contemporary speckled calf (rebacked, worn). Third edition of vol.1, FIRST EDITION of vol.2, containing a section proposing the idea of voyaging to the moon, in the context of Wilkins's endorsement of the new arguements of Kepler, Copernicus and Galileo that the earth was in fact a planet. STC 25641; Norman 2240. — William WHISTON (1667-1752). *A new theory of the earth, from its original, to the consummation of all things.* London: R. Roberts for B. Tooke, 1696. 8° (189 x 120mm). Engraved frontispiece of solar system, 7 engraved plates, engravings in the text. Contemporary panelled calf, speckled edges (rubbed, joints cracked). A complex attempt to explain the Biblical account of creation and cosmology by the Newtonian theory of cometary motion. Wing W-1696; Norman 2229 — John WOODWARD (1665-1728). *An essay towards a natural history of the earth: and terrestrial bodies, especially minerals...with an account of the universal deluge.* London: Ric. Wilkins, 1695. 8° (176 x 111 mm). Half-title (imprimatur on verso). Early 18th-century panelled calf (rubbed). Bound with Woodward's *Remarks upon the ancient and present state of London* (1723). FIRST EDITION. A controversial theory of the earth which attempted to demonstrate the theory that fossils were the result of the Biblical Deluge, but nevertheless "valuable for its methadology (combining first-hand observation with a unified method of obtaining information from distant sources), [and] its strong argument in favor of the organic origin of fossils" (Norman). Wing W3510; Norman 2262.

(3)

Estimate: $2,000-3,000



The three sides of the Δ v, d, c
three angles V, D, C
$\angle PVC = m$, $\angle PVD = n$
$c^2 + d^2 = 2 \cdot \frac{1}{4}v^2 + 2\,PV^2$
$\therefore PV^2 = \frac{c^2+d^2-2v^2}{2} = p^2$ or $PV = p$
$PC^2 = PV^2 + VC^2 - 2PV \cdot VC \cos PVC$
$\frac{1}{4}v^2$ ~~$+\frac{c^2+d^2-2v^2}{2}$~~ $+ d^2 -$
$\frac{1}{4}v^2 = p^2 + d^2 - 2p$

S H Christie T.C.C 1806

HARMONIA MENSURARUM,
SIVE
ANALYSIS & SYNTHESIS
Per RATIONUM & ANGULORUM MENSURAS
PROMOTÆ:
ACCEDUNT ALIA
OPUSCULA MATHEMATICA:
PER
ROGERUM COTESIUM.

———— Si propius ſtes,
Te capient magis.————

EDIDIT ET AUXIT
ROBERTUS SMITH
Collegii S. *Trinitatis* apud *Cantabrigienſes* Socius;
Aſtronomiæ & Experimentalis Philoſophiæ
Poſt COTESIUM Profeſſor.

CANTABRIGIÆ, MDCCXXII.

381

COTES, Roger (1682-1716). *Harmonia mensurarum, sive analysis & synthesis per rationum & angulorum mensuras promotae: accedunt alia opuscula mathematica.* Edited by Robert Smith. Cambridge, 1722.

4° (240 x 182 mm). Engraved table, numerous woodcut diagrams in text. Contemporary English calf (rebacked to match).

Provenance: S.H. Christie, T.C.C. (signature dated 1806 on title-page). Samuel Hunter Christie (1784-1865), the son of the renowned auctioneer (1766-1803), was a mathematician with a keen interest in magnetism. He attended Trinity College, Cambridge, and became a professor of mathematics at Woolwich Military Academy; a laid-in sheet containing mathematical calculations in an 18th-century hand (possibly Christie's); some 18th-century notations on front free endpaper mentioning a translation of Cotes' *De descensu gravium* (and a few marginalia apparently in the same hand); University of London Library (blind-embossed stamp on title and on several internal leaves; withdrawn stamp on title-page verso).

SAMUEL H. CHRISTIE'S COPY OF THE FIRST EDITION of this posthumously published collection of Cotes' mathematical papers edited by Robert Smith. It "contains 'Logometria,' the only one of Cotes' works published during his lifetime, in which he gave two methods for computing Briggsian logarithms ... The work also contains 'Cotes's theorem,' equivalent to finding all the factors of $x^n - a^n$ when n is a positive integer, as well as the first version of the Newton-Cotes formula for evaluating the area under a curve of nth degree and a method for evaluating the most probable result of a set of operations that closely approaches that of least squares" (Norman). Babson/Newton Supp. 174.790; Wallis 246; Norman 519.

Estimate: $800-1,200

S H Christie
MENSURARUM, T.C.C 1806

○382

COTUGNO, Domenico (1736-1822). *De Aquaeductibus auris humanae internae anatomica dissertatio.* Naples: ex typographia Simoniana, 1761.

8° (207 x 122 mm). Title printed in red and black. 2 folding engraved plates (some minor foxing). Contemporary vellum. *Provenance*: purchaser's note on front free endpaper ("comprato in Napoli ... 1791 Dottore Gio' Unis(?) pagato 6.13.4").

FIRST EDITION of Cotugno's dissertation, written at the age of twenty-four, in which he recorded his discovery of the aural aqueducts (*cochleae* and *vestibuli*) and of the cochlear duct. Cotugno made "important contributions to the knowledge on the structure and function of the ear, including the discovery of the aural aqueducts. The naso-palatine nerve and the columns in the osseous spiral lamina are named after him" (Garrison-Morton). Garrison-Morton 1549; Waller 2163; Wellcome II, p.398; Norman 521.

Estimate: $1,000-1,500

○383

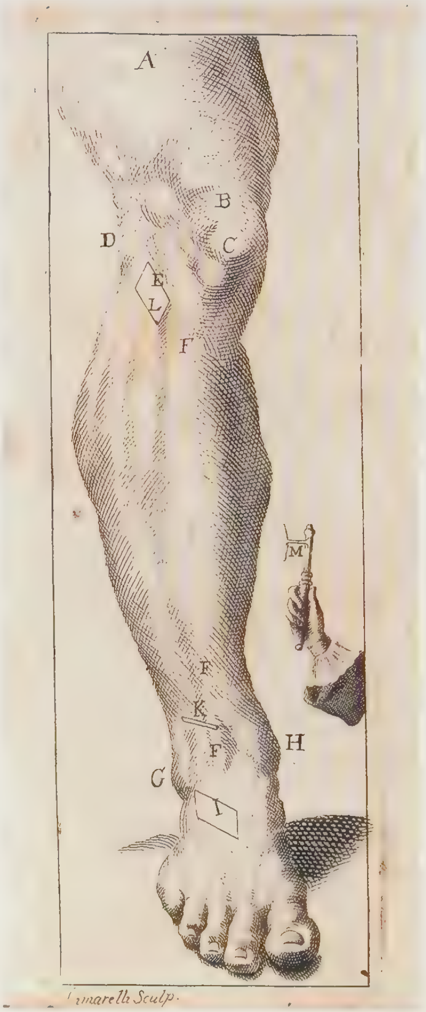
COTUGNO, Domenico (1736-1822). *De ischiade nervosa commentarius.* Naples: Fratres Simonios, 1764.

8° (199 x 121 mm). Title printed in red and black. Engraved plate by Cimarelli. (Some scattered foxing.) Contemporary vellum (a bit soiled). *Provenance*: Giovanni Vivenzio (fl. 1783-1804), Neapolitan court physician and director of the military hospital during the late 18th and early 19th centuries (presentation inscription from the author on the title-page verso: "Joanni Vivensio viro clarissimo et amicissimo in observatiae pignus / Auctor").

PRESENTATION COPY OF THE FIRST EDITION of Cotugno's classic description of the sciatica. "He recognized two types—arthritic and nervous; the latter has been called 'Cotugno's disease,' and his book is confined to that type" (Garrison-Morton). His commentary also describes a case of acute nephritis. Cotugno "was the first to describe the fluid surrounding the spinal cord and to suggest that it was in continuity with the ventricular and cerebral subarachnoid fluids" (Clarke-O'Malley).

This copy also bears an annotation presumably by the author on the "Characterum iconis explicatio" (F4v), where the identification for the iron instrument (indicated in the illustration as M) has been neatly added. PRESENTATION COPIES BY COTUGNO ARE VERY RARE. Clarke-O'Malley, *The Human Brain and Spinal Cord* (Berkeley, 1968), pp. 721-22; Garrison-Morton 1382, 4204.2 and 4515; *Heirs of Hippocrates* 1026; Waller 2166; Wellcome II, p.398; Norman 522.

Estimate: $2,500-3,500



○384

COTUGNO, Domenico (1736-1822). *A Treatise on the nervous sciatica, or, Nervous Hip Gout.* London: for J. Wilkie, 1775.

8° (205 x 125 mm). Engraved frontispiece plate (upper margin cut out). (Scattered soiling and occasional pale spotting). 19th-century American half sheep, marbled boards (minor wear to extremities). *Provenance*: D. Green (signature on final leaf of contents page); Laura A. Greene (owner's stamp on flyleaf).

VERY RARE FIRST EDITION IN ENGLISH. See Garrison-Morton 4515; Norman 523.

[*With*:]

COTUGNO, Domenico. *De sedibus variolarum* ΣΥΝΤΑΓΜΑ. Vienna: Rudolph Graeffer, 1771. 8° (172 x 99 mm). Engraved plate. 18th-century French mottled calf, spine gilt. Second edition of the "first clear pathological study of the skin lesions produced by smallpox" (Norman). The first edition was published in Naples in 1769. Wellcome II, p.398; Norman 524. (2)

Estimate: $1,000-1,500

○385

COULOMB, Charles Augustin de (1736-1806). "Essai sur une application des règles de Maximis & Minimis à quelques Problèmes de Statique, relatifs à l'Architecture." In: *Mémoires de mathématique et de physique,* Année 1773, pp. 343-382. Paris: Imprimerie Royale, 1776. 4° (252 x 183 mm). 18 folding engraved plates (2 illustrating Coulomb's essay). Contemporary French mottled calf gilt (minor wear to extremities).

FIRST PRINTING OF COULOMB'S FIRST AND MOST IMPORTANT MEMOIR ON MECHANICS which provided engineers with an advanced working theory for determining the strength of materials. In this essay he introduced three propositions relating to equilibrium and resolution of forces, considered friction and cohesion, and gave virtually a theory of the flexure of beams and rupture and shear of brittle materials. Coulomb also determined for the first time the neutral surface of a beam. He was ahead of his time in using the calculus of variations to approach the fundamental problems of structural mechanics. This important memoir provided engineers with an advanced working theory for determining the strength of materials. Singer *Technology* IV, pp. 479-80; Norman 525.

Estimate: $1,000-1,500

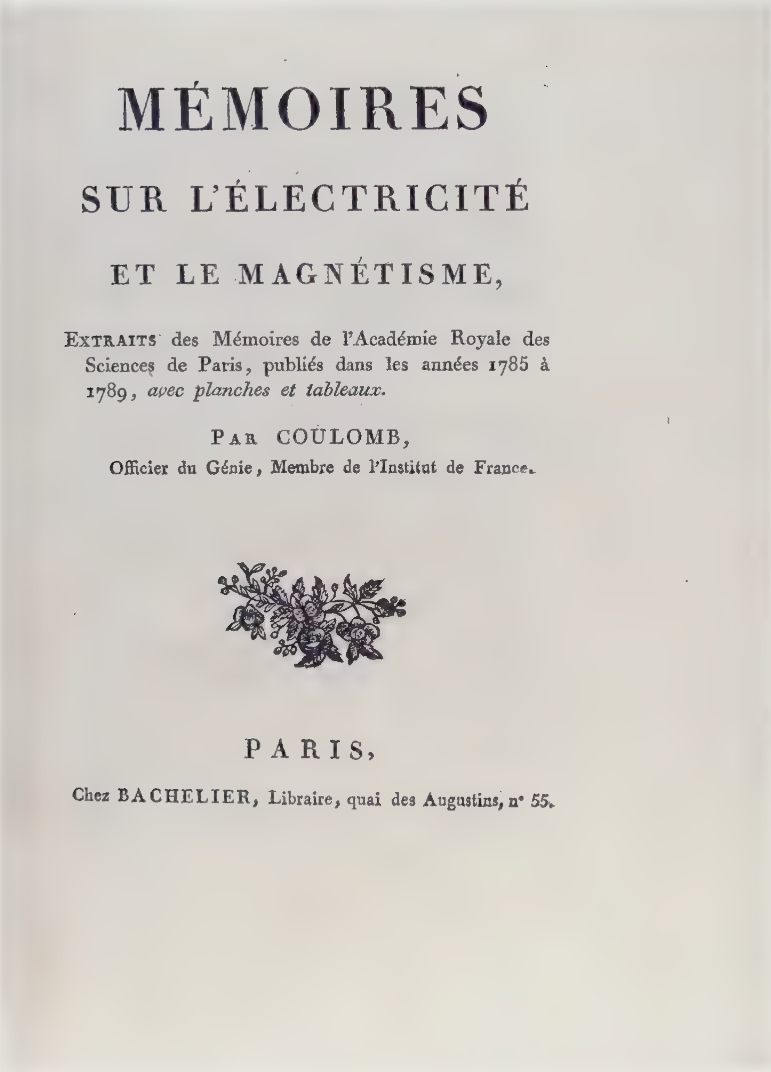
○386

COULOMB, Charles Augustin de (1736-1806). "Théorie des machines simples, en ayant égard au frottement de leurs parties, et à la roideur des cordages." In: *Mémoirs de mathématique et de physique,* Tome X, pp. 161-332. Paris: Moutard, 1785.

4° (249 x 192 mm). 4 engraved plates by Elizabeth and Catherine Haussard (illustrating Coulomb's essay), numerous other engraved plates. Contemporary French mottled sheep, spine gilt (some rubbing and minor wear).

FIRST PRINTING of Coulomb's prize-winning essay on friction. It remained a standard in this field until the advent of molecular friction studies in the twentieth century. "Coulomb showed that in general there is an approximately linear relationship between friction and normal force; but he extended the investigation considerably to show complex effects due to difference in load, materials, time of repose, lubrication, velocity, and other considerations" (DSB). Norman 526.

Estimate: $800-1,200



MÉMOIRES

SUR L'ÉLECTRICITÉ

ET LE MAGNÉTISME,

EXTRAITS des Mémoires de l'Académie Royale des Sciences de Paris, publiés dans les années 1785 à 1789, *avec planches et tableaux.*

PAR COULOMB,
Officier du Génie, Membre de l'Institut de France.

PARIS,
Chez BACHELIER, Libraire, quai des Augustins, nº 55.

387

COULOMB, Charles Augustin de (1737-1806). *Mémoires sur l'électricité et le magnétisme, extraits des Mémoires de l'Académie Royale des Sciences de Paris, publiés dans les années 1785 à 1789.* Premier mémoire [-septième mémoire]. Paris: Bachelier, 1785-89.

7 parts bound together in one volume, 4º (253 x 193 mm). 9 folding engraved plates, 3 folding tables. (2 leaves laid down at part divisions.) Modern quarter calf antique; half calf chemise; board slipcase.

FIRST PRINTINGS OF "THE INAUGURATION OF MENSURATION IN ELECTRICITY" (Grolier/Horblit). These papers describe his invention of the torsion balance, which lead to proving Coulomb's law of attraction and repulsion of electric charges. The first two memoirs deal with Coulomb's proof that electrical and magnetic forces of attraction and repulsion follow the law of inverse squares. The third through sixth memoirs demonstrate that charge distribution depends uniquely on mutual repulsion of like sign and on geometry and positioning of bodies. He here proposed his theory defining two types of conductors: perfect conductors, over whose surfaces electricity can flow freely, and dielectrics, which resist the passage of electricity to varying degrees. The seventh and final memoir presents Coulomb's fully developed theory of magnetism. "Coulomb determined from the relationship of torsion and quantitity of electric charge that attraction and repulsion followed the law of inverse squares" (Dibner). EXTREMELY RARE COMPLETE SERIES OF OFFPRINTS. Dibner *Heralds of Science* 58; Grolier/Horblit 31b; Norman 527.

Estimate: $4,000-6,000

○388

COULOMB, Charles Augustin de (1736-1806). *Théorie des machines simples, en ayant égard au frottement de leurs parties et a la roideur des cordages ... nouvelle édition.* Paris: Bachelier, 1821. 4° (244 x 189 mm). 10 folding engraved plates. (Some minor spotting at end, mostly marginal on plates.) Contemporary French tree sheep gilt (minor rubbing to extremities). *Provenance*: Prof. Gabriel Koenigs (bookplate on half-title).

A collection of Coulomb's memoirs on mechanics, first published in 1809 (both are "rather rare" according to DSB). It includes the "Thérie des machines simples" (see lot 386), "Essai sur une application des règles de maximis et minimis à quelques problèmes de statique" (see lot 385), "Résultat de plusiers expériences destinées à déterminer la quantité d'action que les hommes peuvent fournir par leur travail journalier," his study of ergonomics, and three other papers on friction and mechanics. Norman 528.

Estimate: $600-800

○389

COWPER, William (1666-1709). *The anatomy of humane bodies... to which is added, an introduction, explaining the animal oeconomy, with a copious index.* Oxford: printed at the Theater, for Sam. Smith and Benj. Walford, 1698.

2° (593 x 356 mm). Two engraved titles, the first by A. Bloteling after Gérard de Lairesse, the English title on a slip pasted down over the original title cartouche, the second title engraved to resemble letterpress with allegorical vignette by and after I. Sturt, 114 engraved plates numbered 1-1-5 and 1-9, the first series after Lairesse, probably by Bloteling, numbers 10 and 23 folding, the second series by Michiel van der Gucht after Henry Cook, 2 woodcut text diagrams, woodcut initials and tailpieces. Most of the Lairesse plates letter-keyed in red ink to the English text. (Lacking the engraved portrait, a3 detached, scattered light spotting, some marginal soiling.) Contemporary blind-panelled calf tooled in blind, unidentfied gilt arms at center of covers (rebacked, quite worn and soiled, joints split). *Provenance*: 4 pages of 19th-century ms. notes on Bidloo and Cowper laid down on front pastedown; Dr. Fisher, Carfrae, modern pencil inscription on front pastedown.

First English edition of Bidloo's anatomical plates. Either Cowper or his publishers obtained from Bidloo's publishers 300 sets of impressions of the engraved title and plates from his *Anatomia humani corporis* soon after the publication of the second Dutch edition in 1690. Cowper, a surgeon and fellow of the Royal Society, supplied the English text, and published the whole under his name, the only references to Bidloo being buried within the preface and the text. This so enraged the latter that he submitted to the Royal Society a printed accusation of Cowper (*Gulielmus Cowper, criminis literarii citatus...*, Leiden 1700), in which he published his correspondence with the Englishman, with "much abusive language, and a minute criticism of Cowper as an anatomist" (DNB). Cowper responded in kind in a pamphlet published in 1701, denying Bidloo any rights to the plates, which he claimed to have been designed by Lairesse for Swammerdam. Although the concealment of Bidloo's name remains one of the most notorious instances of plagiarism in medical literature, Cowper's expanded text was in fact largely original and based on his own observations. The nine additional plates of the appendix illustrate the "external muscles, and divers parts of humane bodies which are either omitted, or not well exprest in the preceding tables."

Choulant-Frank, p. 252; Garrison-Morton 385.1; cf. *Heirs of Hippocrates* 724; NLM/Krivatsy 2787; Wellcome II, p. 401; Wing C-6698; Norman 529.

Estimate: $4,000-6,000

N. B. *The Muſcles of the internal Ear cannot be demonſtrated, till after thoſe of the Head are diſpatch'd, and the Brain removed; but we ſhall follow the Example of others, and inſert their Deſcriptions in this Place; it being alſo cuſtomary, in the Myological Lectures at Chirurgeons Hall, to ſhew them in a dried Preparation from the precedent Subject.*

ɔ390

COWPER, William (1666-1709). *Myotomia reformata: or an anatomical treatise on the muscles of the human body*. Edited by Richard Mead (1673-1754). London: Robert Knaplock, William and John Innys, and Jacob Tonson, 1724.

2° (444 x 316 mm). Title printed in red and black, engraved frontispiece, engraved full-sheet table of the "Syllabus musculorum" 67 engraved plates numbered to 67, with plate 13 in two states, engraved text diagrams, fine engraved historiated initials and head- and tail-piece illustrations, several repeated, a few woodcut tailpieces and typographic head-piece ornaments. (Blank leaves v2 and Ddd2 removed, frontispiece and title lightly soiled and each with a small marginal tear, scattered light spotting, occasional small stains, marginal dampstain to last few leaves.) 19th-century English dark brown morocco, covers panelled with double gilt fillet and foliate roll borders in blind (rebacked, corners restored, lower cover scuffed). *Provenance*: William Robinson (19th-century signatures).

The first edition of Cowper's treatise on the muscular system of the human body was published in 1694 as a modest octavo with 10 plates. Cowper worked until his death on this greatly expanded edition, which was published 13 years later under the supervision and at the expense of the physician Richard Mead (1673-1754). With its 66 plates, some after Rubens and Raphael, its witty engraved initials and dramatic head- and tail-piece illustrations, this first folio edition ranks among the most artistically inventive anatomical atlases of the 17th and 18th centuries. Garrison-Morton 392.1; *Heirs of Hippocrates* 723; Russell 210; Wellcome II, p. 401; Norman 530.

Estimate: $4,000-6,000

ɔ391

CRUIKSHANK, William (1745-1800). *The Anatomy of the absorbing Vessels of the Human Body.* London: G. Nicol, 1786.

4° (276 x 213 mm). 3 engraved plates (one folding), two of which are color-printed in carmine (folding plate torn and repaired). (Some scattered light foxing at beginning and end.) Contemporary half sheep, (spine labels renewed, rubbing to edges). *Provenance:* Medical Library, Hull (ink stamp on title).

FIRST EDITION. "This first edition of Cruikshank's treatise on the absorbing vessels established the modern understanding of lymphatics" (*Heirs of Hippocrates*). Garrison-Morton 1103; *Heirs of Hippocrates* 1059; Waller 2226; Wellcome II, p. 411; Norman 537.

Estimate: $1,200-1,800

ɔ392

CULLEN, William (1710-1790). *Synopsis nosologiae methodicae -Pars secunda. Genera morborum definita.* Edinburgh, 1769.

8/so (201 x 119 mm). Contemporary calf-backed boards (marbled paper renewed, joints rubbed). *Provenance*: Archibald Goodsir (signature on title dated 23 December 1800); John Goodsir (signature on title, the father or grandgather of the following); John Goodsir (1814-1867), anatomist who wrote works on the growth of teeth and "Centres of nutrition," which were collected in *Anatomical and pathological observations* (Norman 915) (signature on title-page); Ralph Hermon Major (bookplate).

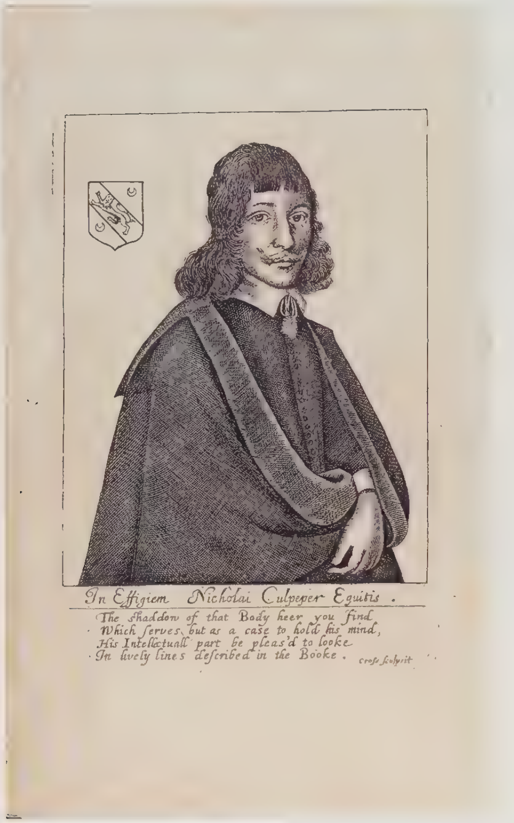
FIRST EDITION of Cullen's famous work in which he classified diseases into four categories: fevers, neurosis, cachexias and local disorders. "Cullen was the foremost British clinical teacher of his time, one of the first to give clinical lectures in Great Britain" (Garrison-Morton). The second part contains synopses of François Bossier de Sauvage's *Nosologia methodica* (first published 1763), Linnaeus' *Genera morborum* (1763), and Vogel's *Definitiones generum morborum* (1764). Garrison-Morton 2204; Norman 539.

[*With*:]

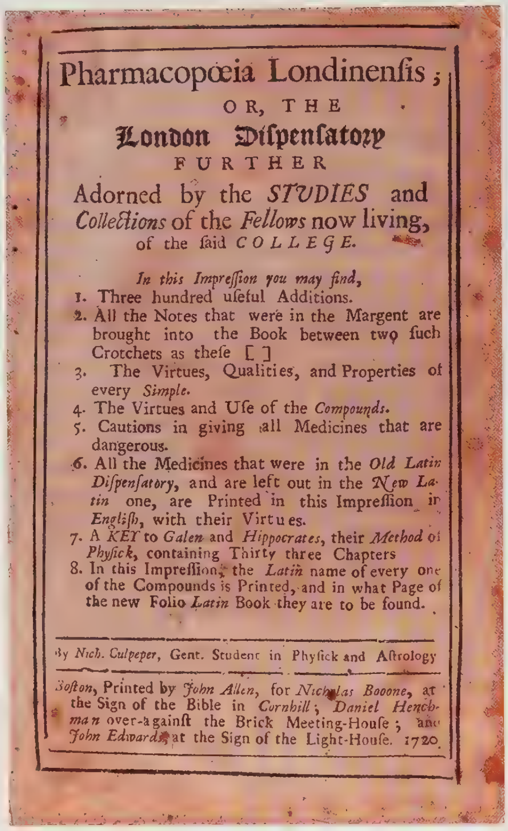
CULLEN, William. *Synopsis and Nosology, being an Arrangement and Definition of Diseases.* Hartford [Conn.]: Nathaniel Patten, 1792. 8/so (147 x 86 mm). Contemporary calf. FIRST EDITION IN ENGLISH, variant issue title-imprint without "Printed by Nathaniel Patten for Isaiah Thomas, Worcester, Mass..." Austin 580 (Isaiah Thomas imprint); see Evans 24237 (Isaiah Thomas imprint); Norman 540.

(2)

Estimate: $1,000-1,500


In Effigiem Nicholai Culpeper Equitis .
The ſhaddow of that Body heer you find
Which ſerves, but as a caſe to hold his mind,
His Intellectuall part be pleas'd to looke
In lively lines deſcribed in the Booke .
croſs ſculpsit

393



Pharmacopœia Londinenſis;
OR, THE
London Diſpenſatory
FURTHER
Adorned by the *STUDIES* and
Collections of the *Fellows* now living,
of the ſaid *COLLEGE.*

In this Impreſſion you may find,
1. Three hundred uſeful Additions.
2. All the Notes that were in the Margent are brought into the Book between two ſuch Crotchets as theſe [ ]
3. The Virtues, Qualities, and Properties of every *Simple.*
4. The Virtues and Uſe of the *Compounds.*
5. Cautions in giving all Medicines that are dangerous.
6. All the Medicines that were in the *Old Latin Diſpenſatory*, and are left out in the *New Latin* one, are Printed in this Impreſſion in *Engliſh*, with their Virtues.
7. A *KEY* to *Galen* and *Hippocrates*, their *Method* of *Phyſick*, containing Thirty three Chapters
8. In this Impreſſion, the *Latin* name of every one of the Compounds is Printed, and in what Page of the new Folio *Latin* Book they are to be found.

By *Nich. Culpeper*, Gent. Student in Phyſick and Aſtrology

Boſton, Printed by *John Allen*, for *Nicholas Booone*, at the Sign of the Bible in *Cornhill*; *Daniel Henchman* over-againſt the Brick Meeting-Houſe; and *John Edwards*, at the Sign of the Light-Houſe. 1720

394

›393

CULPEPER, Nicholas (1616-1654). *The English Physitian: or an Astrologo-Physical Discourse of the Vulgar Herbs of this Nation.* London: Peter Cole, 1652.

2° (247 x 162 mm). Engraved portrait frontispiece. (First 6 leaves washed, small patch on title-page verso, some minor browning and spotting.) Modern calf antique. *Provenance*: Faint early ownership inscriptions on frontispiece recto; page numbers referenced in an early hand in catalogue cf contents.

FIRST EDITION of Culpeper's popular work on herbal remedies. Cushing C560; NLM/Krivatsy 2963; Wellcome II, p. 415; Wing C-7502; Norman 541.

Estimate: $1,500-2,000

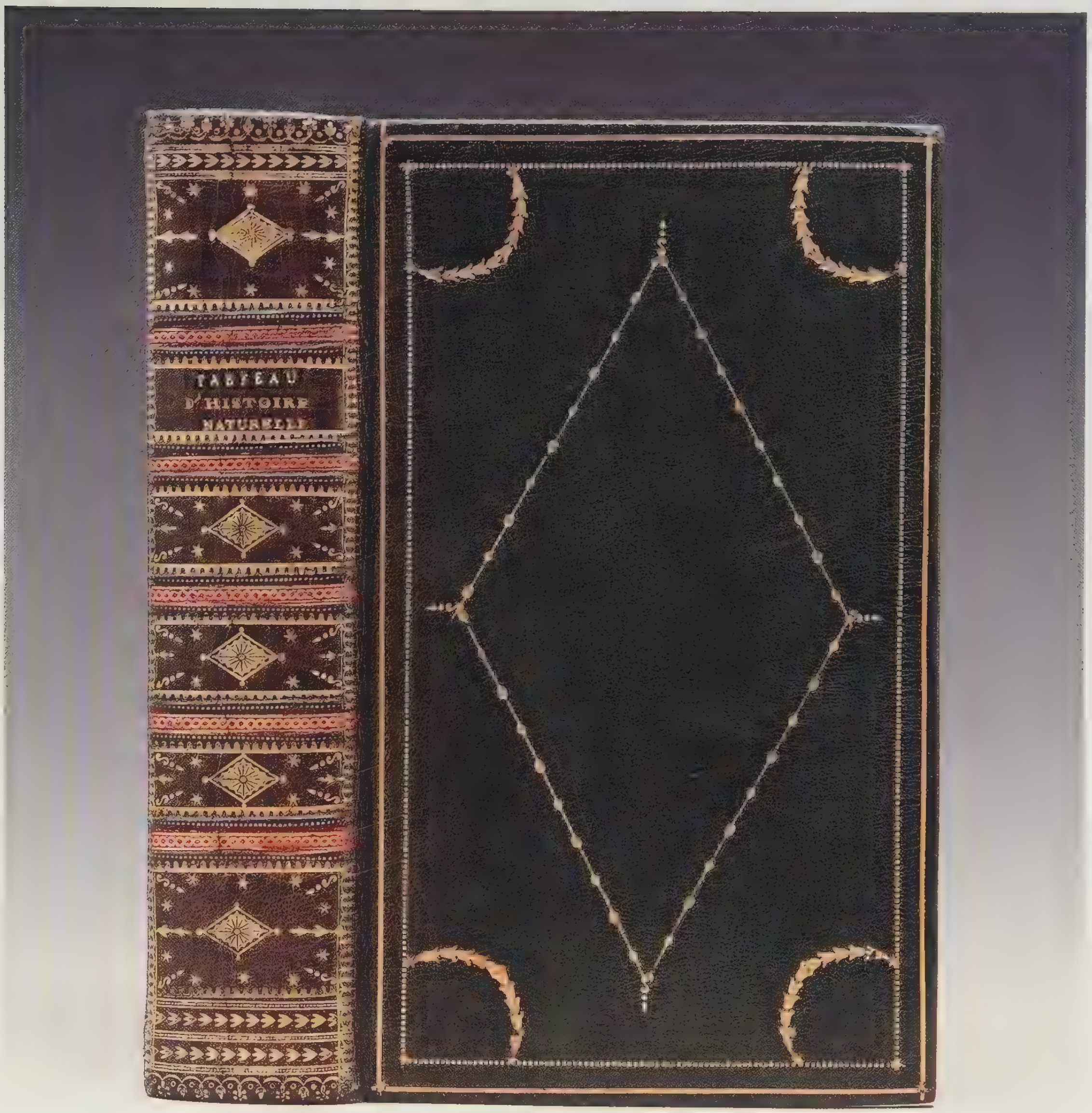
›394

CULPEPER, Nicholas (1616-1654). *Pharmacopoeia Londinensis; or, the London Dispensatory further Adorned by the Studies and Collections of the Fellows now living, of the said College.* Boston: John Allen for Nicholas Boone, Daniel Henchman, and John Edwards, 1720.

8° (185 x 110 mm). (Some browning and spotting.) Contemporary American speckled calf, covers panelled in blind; morocco folding case. *Provenance*: Daniel Mathewson (early ownership inscription on flyleaves).

FIRST AMERICAN EDITION OF "THE FIRST HERBAL PRINTED IN NORTH AMERICA, and the first full-length medical book published in North America" (Garrison-Morton). Its only known predecessors are Thomas Thatcher's broadside entitled, *A brief rule to guide the common- people of New England ... in the small pocks or measels* (Boston, 1677, i.e. 1678); and an American edition of Culpeper's *The English Physician* (Boston, 1708), which was the first medical book (94 pp.) printed in North America. The *London Dispensatory* "enjoyed a wide popularity in the colonies, perhaps because of its Puritan slant and its bias toward the household treatment of illness" (Norman). FINE COPY IN A WELL-PRESERVED CONTEMPORARY BINDING. Austin 591; Evans 2114; Garrison-Morton 1828.2; Norman 542.

Estimate: $6,000-8,000



395

CUVIER, Georges L.C., Baron (1769-1832). *Tableau Élémentaire de l'Histoire Naturelle des Animaux.* Paris: Baudouin, 1797-1798.

8° (204 x 125 mm). 14 engraved plates. Contemporary olive green morocco gilt, spine in six compartments, five red morocco onlays within double raised bands; gilt inner dentelles, silk doublures and silk linnings, g.e., binder's ticket "Relié par Bisiaux..." on verso of front free endpaper, with the address altered in ink from "Rue du Foin St. Jacques N° 32" to "Rue des Carmes N° I," in modern half morocco chemise and slipcase.

Provenance: M.E. Leparmentier-d'Héricy (with inserted letterpress presentation leaf); Mortimer Schiff (bookplate, sale Sotheby's, 6 Dec. 1938, lot 1474 to Dulau); U. Prost (bookplate).

FIRST EDITION. PRESENTATION COPY, with printed presentation by Cuvier to his patroness, presumably in presentation binding. Cuvier's first separate work, contains the first classification of the animal kingdom. De Ricci *French signed bindings in the Schiff collection* II, 127; Nissen *ZBI* 1012; Norman 564.

Estimate: $3,000-4,000

ↄ396

CUVIER, Georges L.C., Baron (1769-1832). *Recherches sur les Ossemens Fossiles de Quadrupèdes.* Paris: Deterville, 1812.

4 volumes, 4° (274 x 214 mm., uncut). 155 engraved plates, including folding plates and one hand-colored map (light dampstaining to lower margin of some plates.) Contemporary speckled sheep, spines gilt each with two red morocco labels (light wear to head of spines of three volumes).

FIRST EDITION of the "INAUGURATION OF VERTEBRATE PALEONTOLOGY." (Grolier/Horblit). Grolier/Horblit 20b; Nissen *ZBI* 1011; Ward & Carozzi 566; Norman 566.
(4)

Estimate: $4,000-6,000

ↄ397

CUVIER, Georges L.C., Baron (1769-1832). *Le Régne Animal distribué d'aprés son Organisation.* Paris: Deterville, 1817. 4 volumes, 8° (201 x 125 mm). 15 engraved plates. Contemporary tree calf, spines elaborately gilt (minor rubbing to spines). FIRST EDITION. "It is in his classification of the animal kingdom into four main groups, Vertebrata, Mollusca, Articulata and Radiata, that he so notably succeeded in giving a lead that has been followed by all his successors" (PMM). Dibner *Heralds of Science* 195; Garrison-Morton 327; *Heirs of Hippocrates* 1240; Nissen *ZBI* 1013; PMM 276; Sparrow *Milestones of Science* 42; Waller 14796; Wellcome II, p. 423; Norman 567 — CUVIER. *Leçons d'Anatomie comparée...* Edited by C. Duméril and G.L. Duvernoy. Paris: Baudouin, [1800]-1805. 5 volumes, 8° (197 x 121 mm). 52 engraved plates. Contemporary tree calf (some spines repaired, first volumes with binding upside down). FIRST EDITION. An early work on comparative anatomy. Garrison-Morton 311; Grolier/Horbilt 20a; *Heirs of Hippocrates* 1239; Nissen *ZBI* 1008; Waller 2254; Wellcome II, p. 423; Norman 565.
(9)

Estimate: $1,000-1,500

ↄ398

DALTON, John (1766-1844). *Meteorological Observations and Essays.* London: for W. Richardson, J. Phillips, and W. Pennington, 1793.

8° (225 x 142 mm). 19th-century blue publisher's cloth, hand-lettered spine label, uncut.

FIRST EDITION of the author's first book. It includes his observations on evaporation, including his novel theory that diffustion of water vapour in the atmosphere was not a chemical process. The appendix contains what is now known as "Dalton's Law" of partial pressures: that in a mixture of gases, every gas acts as an independent entity. VERY FINE. Wheeler Gift 582; Norman 574.

Estimate: $600-800

ↄ399

DALTON, John (1766-1844). *A New System of Chemical Philosophy.* Manchester: S. Russell for R. Bickerstaff [Vol. I, part 1], 1808; Russell and Allen for R. Bickerstaff [Vol. I, part 2], 1810; the executors of S. Russell for George Wilson [Vol. II], 1827.

3 parts in 2 volumes, 8° (227 x 137 mm [Vol. I, part 1], 224 x 138 mm [Vol. I, part 2], 224 x 139 mm [Vol. II]). 8 engraved plates (some scattered brown spotting to plates in first part). Contemporary cloth-backed boards (boards vary by volume, plain and marbled), uncut, hand-

Dalton's Chemical Philosoph Vol. II. 1827
Dalton's Chemical Philosophy Pt II. 1810
Dalton's Chemical Philosophy Pt I. 1808

lettered spine labels; quarter morocco folding case. *Provenance*: Early owner's manuscript chemical table mounted on rear pastedown of first part; printed broadsheet mounted on front pastedown of first part entitled "Atomic Symbols, by John Dalton explanatory of a lecture given by him to the Members of the Manchester Mechanics' Institution, 19th October 1835."

FIRST EDITION OF DALTON'S CLASSIC WORK ON THE ATOMIC THEORY OF MATTER. "Dalton reconstructed Newton's speculations on the structure of matter, and, applying them in a new form to chemistry, gave Lavoisier's reformation of that science a deeper significance" (PMM). Dalton maintained that all matter was composed of indestructible and indivisible atoms of various weights, each weight corresponding to one of the chemical elements. These atoms remained unchanged during chemical processes, and their particular weight determined their identity. His *New System* presented the first chemical atomic theory giving significance to the relative weights of the ultimate particles of all known compounds. It also provided a quantitative explanation of the phenomena of chemical reaction. "He developed a system of chemical symbols and a table [plate 4 in part 1] showing the relative weights of the atoms of a list of elements. From his principles he deduced the law of definite proportions and the law of multiple proportions" (Dibner). A FINE COMPLETE SET IN ORIGINAL CONDITION. Dibner *Heralds of Science* 44; Duveen, p. 156; Grolier/Horblit 22; Partington III, pp. 799-813; PMM 261; Norman 575.

(3)

Estimate: $3,000-4,000

400

[DAVY, Sir Humphry (1778-1829)]. BEDDOES, Thomas (1760-1808). *Contributions to Physical and Medical Knowledge.* Pp. 4-147 and 151-198. Bristol and London: Biggs & Cottle, for T.N. Longman and G. Rees, 1799.

8° (207 x 127 mm). (Library stamp in two places.) Contemporary calf (hinges cracked, library mark on spine). *Provenance:* Boylston Medical Library (bookplate); Boston Medical Library (ink stamp in two places).

FIRST EDITION. Contains the first appearance of two scientific papers by Davy: *An essay on heat, light and the combinations of light* (pp. 4-147) and *An essay on the generation of phosoxygen, or oxygen gas. And on the causes of colours in organic beings* (pp. 151-198). "Beddoes's most significant contribution to science was the discovery of Humphry Davy, whom he appointed superintendent of his Pneumatic Institution, for the treatment of diseases by administration of gases, when Davy was just nineteen" (Norman). Norman 606.

Estimate: $1,200-1,800

401

DAVY, Humphry Sir (1778-1829). *Researches, Chemical and Philosophical chiefly concerning Nitrous Oxide or dephlogisticated nitrous air, and its respiration.* London: J. Johnson, 1800.

8° (210 x 131 mm). One engraved plate. Contemporary calf (rebacked, old spine laid down). *Provenance:* Richard Prime (bookplate); Wellcome Medical Library (withdrawal stamp on verso of title).

FIRST EDITION. THE AUTHOR'S FIRST IMPORTANT WORK. "Davy, apprenticed as a surgeon-apothecary, published the above at age 22. Two years earlier, he experimented with various gases at the Medical Pneumatic Institution in Bristol, to determine their medical properties. He discovered that pure nitrous oxide (laughing gas) was respirable and himself breathed large quantities of it with exhilarating effect. He observed that 'it may probably be used with advantage in surgical operations.'" (Dibner). Dibner *Heralds of Science* 128; Garrison-Morton 5646; Osler 1382; Waller 11113; Wellcome II, p. 436; Norman 607.

Estimate: $3,000-4,000

402

DAVY, Sir Humphry (1778-1829). *On the Safety Lamp for Coal Miners: with some Researches on Flame.* London: R. Hunter, 1818.

8° (225 x 137 mm., uncut). Engraved folding plate. Original boards (rebacked); slipcase.

FIRST EDITION. A description of Davy's wire-gauze lamp, and an account of Davy's researches on explosions from inflamable air. Davy expresses hope "of presenting a permanent record on this important subject to the practical miner, and of enabling the friends of humanity to estimate and apply those resources of science, by which a great and permanently existing evil may be subdued" (Preface). Norman 613.

Estimate: $1,000-1,500

›403

DAVY, Sir Humphry (1778-1829). "On the fire-damp of coal mines, and on methods of lighting the mines so as to prevent its explosion" and "An account of an invention for giving light in explosive mixtures of fire-damp in coal mines, by consuming the fire-damp." In: *Philosophical transactions.* Part I, pp. 1-22 and pp. 23-24. London: W. Bulmer & Co., 1816. 4° (297 x 233 mm., uncut). Engraved folding plate by James Basire. Contemporary plain blue wrapper (some chipping to corners). FIRST APPEARANCE of the description of Davy's wire-gauze lamp. Dibner *Heralds of Science* 181; Partington IV, pp. 61-67; Norman 611 — DAVY. *On the Fire-Damp of Coal Mines. From the Philosophical Transactions of the Royal Society. With an Advertisement containing an account of an invention for lighting the mines and consuming the fire-damp without danger for the miner.* London: W. Bulmer, 1816. 8° (205 x 130 mm). Engraved folding plate by James Basire. Modern boards. Second separate appearance, the first to contain the *Advertisment.* Norman 612.

(2)

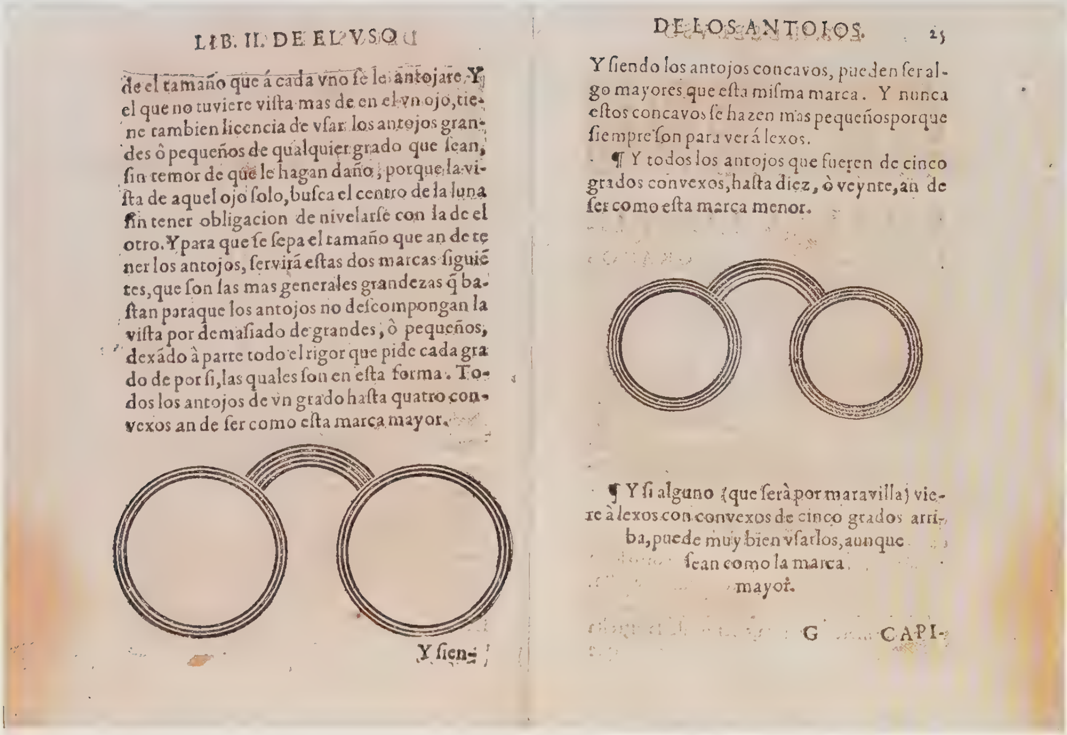
Estimate: $1,000-1,500

›404

DAVY, Sir Humphry (1778-1829). *Elements of Agricultural Chemistry, in a Course of Lectures for the Board of Agriculture.* London and Edinburgh: W. Bulmer for Longman, Hurst, Rees, Orme, and Brown, 1813. 4° (287 x 220 mm., uncut). 10 engraved plates, one folding (light foxing.) Contemporary boards (rebacked). *Provenance:* Edmund Lamplugh Irton (bookplate). FIRST EDITION. Welcome II, p.436; Norman 610. — DAVY. *On some new Phenomena of Chemical Changes produced by Electricity, particularly the Decomposition of the fixed Alkalies...* Offprint from: *Philosophical Transactions.* London: W. Bulmer & Co., 1808. 4° (278 x 221 mm). Disbound. *Provenance:* Daniel Ellis (with inscription by Davy on the title page). First separate appearance. Norman 608. — DAVY. *Elements of Chemical Philosophy.* London: J. Johnson and Co., 1812. Volume I, part I (all published). 8° (213 x 130 mm). 12 engraved plates. Modern half calf and old boards. *Provenance:* Bartram, Earl of Ashburnham (with inscription from the dedicatee, Lady Jane Davy on front free endpaper). FIRST EDITION. Duveen, p. 161; Wellcome II, p.436; Norman 609.

(3)

Estimate: $800-1,200



LIB. II. DE EL VSO

de el tamaño que á cada vno ſe le antojare. Y el que no tuviere viſta mas de en el vn ojo, tiene tambien licencia de vſar los antojos grandes ô pequeños de qualquier grado que ſean, ſin temor de que le hagan daño; porque la viſta de aquel ojo ſolo, buſca el centro de la luna ſin tener obligacion de nivelarſe con la de el otro. Y para que ſe ſepa el tamaño que an de tener los antojos, servirá eſtas dos marcas ſiguiẽtes, que ſon las mas generales grandezas q̃ baſtan paraque los antojos no deſcompongan la viſta por demaſiado de grandes, ô pequeños, dexádo à parte todo el rigor que pide cada grado de por ſi, las quales ſon en eſta forma. Todos los antojos de vn grado haſta quatro convexos an de ſer como eſta marca mayor.

Y ſien-

DE LOS ANTOJOS. 25

Y ſiendo los antojos concavos, pueden ſer algo mayores que eſta miſma marca. Y nunca eſtos concavos ſe hazen mas pequeños porque ſiempre ſon para verá lexos.

¶ Y todos los antojos que fueren de cinco grados convexos, haſta diez, ò veynte, an de ſer como eſta marca menor.

¶ Y ſi alguno (que ſerà por maravilla) viere à lexos con convexos de cinco grados arriba, puede muy bien vſarlos, aunque ſean como la marca mayor.

G CAPI-

405

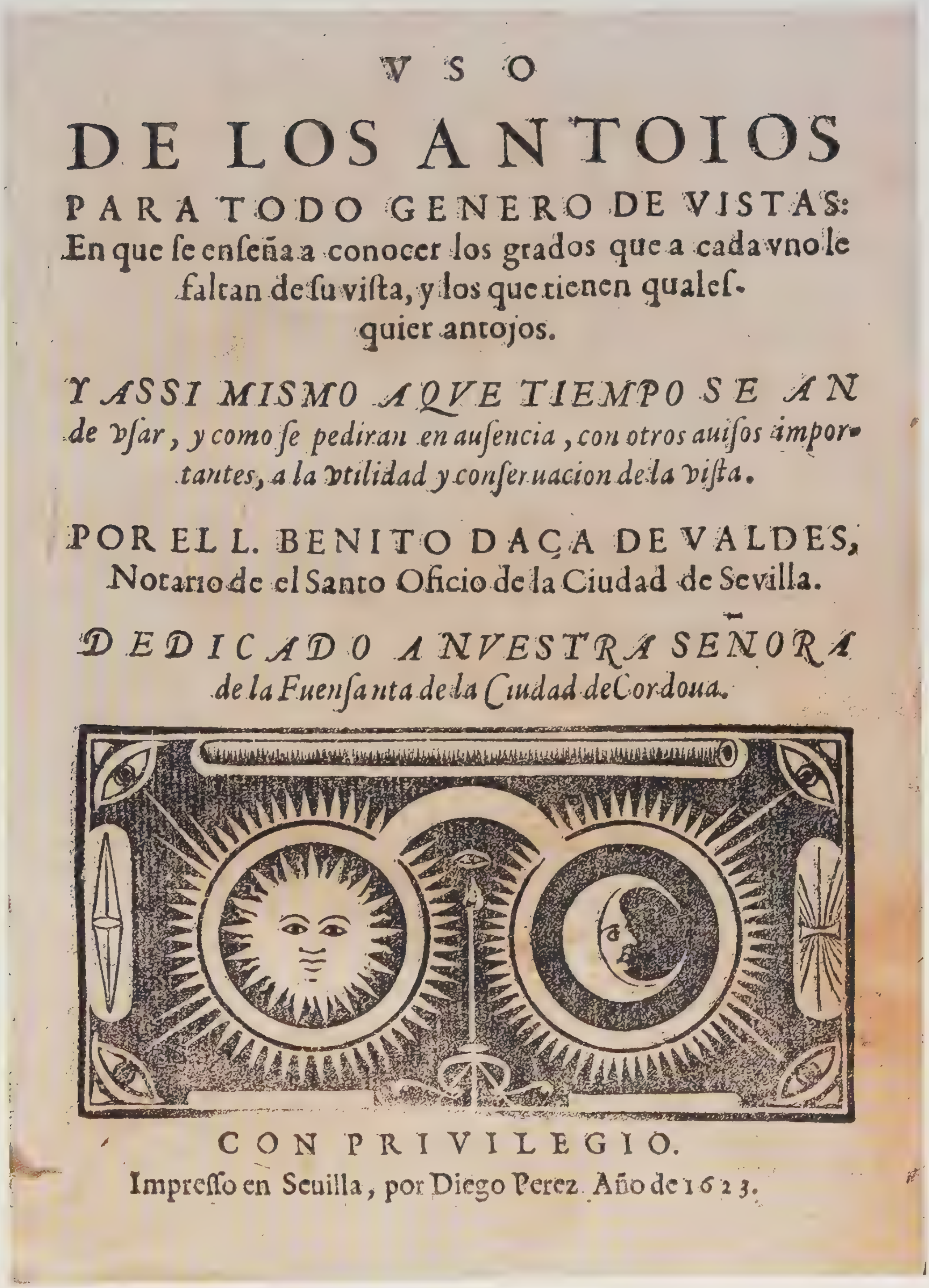
DAZA DE VALDÉS, Benito (b. Cordoba 1591?). *Uso de los antoios para todo genero de vistas.* Sevilla: Diego Perez, 1623.

4° (188 x 136 mm). Collation: §⁴ §§⁴ §§§⁴ A-Z⁴ Aa-Bb⁴. 111 leaves (of 112, without Bb4 blank). Privilege on §/2v, errata on §/3r, black-ground woodcut title vignette of a pair of spectacles, woodcut vignette at the head of the preliminary "Romance de la aparicion de nuestra Señora de la Fuensanta en la Ciudad de Cordova" (§§/1r-§§/4v), full-page medallion portrait of the author at the age of 32, 11 woodcuts in the text of which one full-page, woodcut passe-partout initials and tailpieces, typographic headpiece and initial ornaments. R2r with printing flaw corrected in ink(?). (Some light staining and soiling, Bb1 torn along gutter, woodcut of degree meter on H1 slightly cropped at bottom.) Contemporary limp vellum, manuscript title on spine (upper inner hinge split). *Provenance*: a few 18th-century and later marginalia.

EXTREMELY RARE FIRST EDITION OF ONE OF THE FIRST SPANISH BOOKS ON OPTICS AND OPTHALMOLOGY AND THE EARLIEST SCIENTIFIC TREATISE ON SPECTACLES. Little is known of the author beyond his self-description in the present treatise (his only known work) as a lawyer from Cordoba who worked as a notary for the Inquisition at Seville. The work is divided into 3 parts, the first two being devoted to the anatomy and physiology of the eye, the improvement of vision by means of lenses, materials for making lenses, methods of measuring vision, and the types of lenses used to correct faulty vision. Part 3 contains four dialogues between several fictional interlocutors who discuss various types of visual impairment and corrective lenses. The work was one of the earliest to mention the benefits of using convex lenses after cataract operations. Its schematic woodcuts illustrate spectacles, variously shaped lenses, and tables for measuring sight.

Garrison-Morton 5821; NLM/Krivatsy 3071; Palau 69075; Norman 614.

Estimate: $8,000-12,000



VSO
DE LOS ANTOIOS
PARA TODO GENERO DE VISTAS:
En que ſe enſeña a conocer los grados que a cada vno le
faltan de ſu viſta, y los que tienen qualeſ-
quier antojos.

Y ASSI MISMO A QVE TIEMPO SE AN
de vſar, y como ſe pediran en auſencia, con otros auiſos impor-
tantes, a la vtilidad y conſeruacion de la viſta.

POR EL L. BENITO DAÇA DE VALDES,
Notario de el Santo Oficio de la Ciudad de Sevilla.

DEDICADO A NVESTRA SEÑORA
de la Fuenſanta de la Ciudad de Cordoua.

CON PRIVILEGIO.
Impreſſo en Seuilla, por Diego Perez. Año de 1623.

405 (actual size)

○406

DEROSNE, Charles Louis (1780-1846). "Memoir sur l'Opium." Offprint from: *Annales de chimie* 45 (1802). [Paris, 1802].

8° (208 x 141 mm). Original plain paper wrappers, sewn, uncut; cloth folding case. *Provenance*: Antoine Laurent de Jussieu (1748-1836), famous French botanist who worked with his uncle Bernard at the Jardin du Roi and author of the *Genera plantarum*, published in 1789 (presentation inscription from the author on the front cover: "Mr. De Jussieu / au jardin des Plantes / de la part d l'auteur").

FIRST SEPARATE APPEARANCE. PRESENTATION COPY TO THE GREAT BOTANIST DE JUSSIEU. "Derosne isolated a crystalline precipitate of morphine and narcotine from opium as early as 1803, two years before Sertürner published his first papers on the isolation of morphine; unlike Sertürner, however, Derosne did not recognize the alkaloid nature of the precipitate. He reported that a small quantity of the substance he had isolated had the same physiological effects as much larger amounts of raw opium" (Norman). Garrison-Morton 1838.3 ("isolation of alkaloids from opium"); Partington IV, pp. 240-41; Wellcome II, p. 451; Norman 620.

Estimate: $1,500-2,500

○407

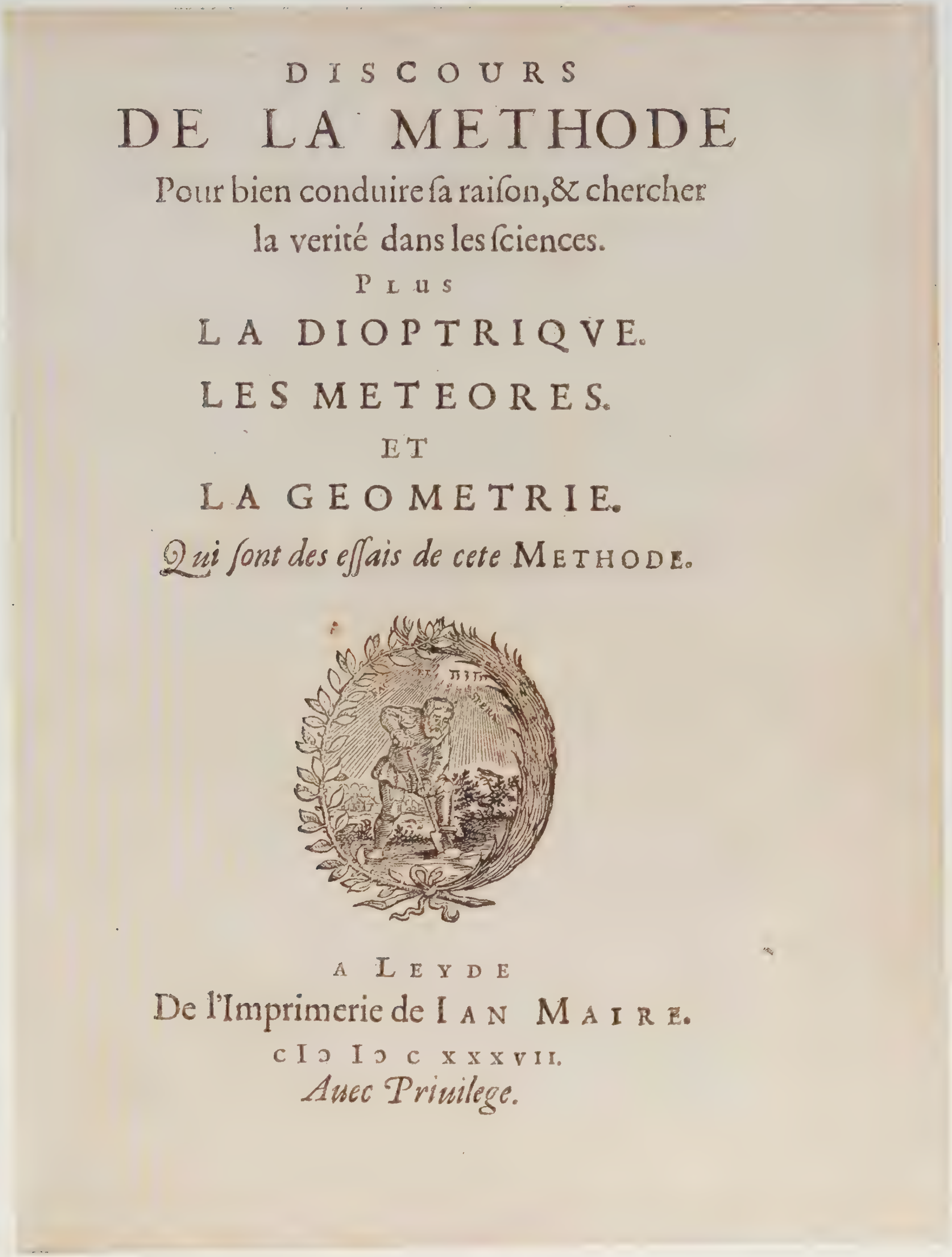
[DESCARTES, René (1596-1650)]. *Discours de la méthode pour bien conduire sa raison, & chercher la verité dans les sciences*. Leyden: Jan Maire, 1637.

4° (199 x 151 mm). Printer's woodcut device on title, numerous woodcut diagrams in text (one full-page cut repeated 7 times). Contemporary Dutch vellum with overlapping edges; full morocco folding case. *Provenance*: Early hand-lettered monogram on pastedown; Hammer Library, Stockholm (bookplate); P.W. (bookplate).

FIRST EDITION OF DESCARTES' FUNDAMENTAL WORK IN PHILOSOPHY AND ON THE METHOD OF SCIENCE. Written as a "Preface" to the three Essais and included to illustrate its range, the *Discours* presents an outline of Descartes' new metaphysical system, or scientific method, summed up in the Four Rules in the Part Two. The first part of the *Discours* is autobiographical and covers his life up to 1619; the second part includes discovery of a method as set out in the four *Regulae*: to accept nothing that is not evidently true, to divide the difficulty into as many parts as are needed, to start with the simplest problems, and to be so comprehensive as to leave nothing out. Part Three deals with the doctrines of the early *Regulae*; part four offers a metaphysical doctrine he would much more fully develop in the *Meditationes*. The fifth part provides a summary of *Le Monde* and *L'Homme*, including his discussion of cardiovascular physiology which mentions Harvey. In Part Six Descartes offers a strongly naturalistic account of human behaviour and an introduction to the three treatises that follow: *La Dioptrique*, a practical treatise which includes Descartes' derivation of the law of refraction, *Les Météors*, the most straightforward and most suited for adoption as a textbook, and *La Géométrie*, his application of algebra to geometry.

Descartes' purpose was "to find the simple indestructible proposition which gives to the universe and thought their order and system. Three points are made: the truth of thought, when thought is true to itself (thus *cogito, ergo sum*), the inevitable elevation of its partial state in our finite consciousness to its full state in the infinite existence of God, and the ultimate reduction of the material universe to extension and local movement. From these central propositions in logic, metaphysics and physics came the subsequent inquiries of Locke, Leibniz and Newton; from them stem all modern scientific and philosophic thought" (PMM). A VERY FINE COPY. Dibner *Heralds of Science* 81; Grolier/Horblit 24; Guibert, p. 14; NLM/Krivatsy 3114; PMM 129; Norman 621.

Estimate: $30,000-40,000

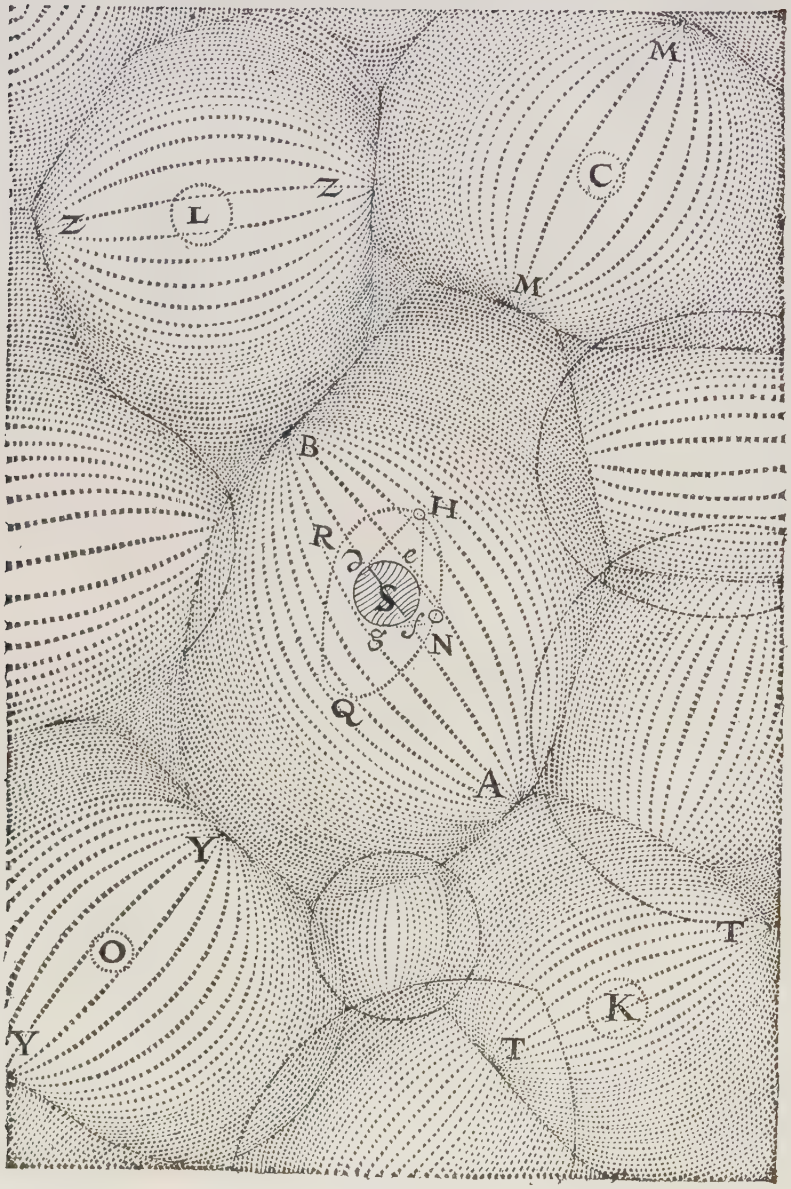


DISCOURS
DE LA METHODE
Pour bien conduire ſa raiſon, & chercher
la verité dans les ſciences.
PLUS
LA DIOPTRIQVE.
LES METEORES.
ET
LA GEOMETRIE.
Qui ſont des eſſais de cete METHODE.

A LEYDE
De l'Imprimerie de IAN MAIRE.
CIↃ IↃ C XXXVII.
Auec Priuilege.

407 (actual size)

118 PRINCIPIORUM PHILOSOPHIÆ



408 (actual size)

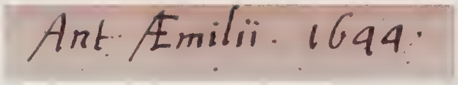
408

DESCARTES, René (1596-1650). *Principia philosophiae.* Amsterdam: Louis Elzevir, 1644.

4° (202 x 155 mm). Printer's woodcut device on title, numerous woodcut illustrations and diagrams, some full-page. Contemporary vellum.

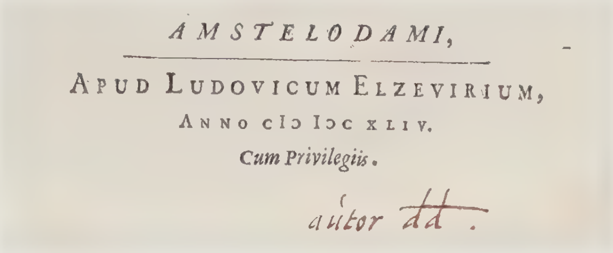
Provenance: Antoine Aemilius (1589-1666), professor of history at the University of Utrecht who was an enthusiastic contemporary supporter of Cartesian philosophy (signature dated 1644 on front free endpaper and his inscription "auctor dd." on title-page, and his? marginalia and underlining throughout); some early marginalia in another hand.

PRESENTATION COPY OF THE FIRST EDITION OF DESCARTES' SYSTEM OF PHYSICS, in which he developed his theory of vortices. Based in part on his then unpublished work *Le monde*, which treated the creation and function of the universe in completely mechanistic terms, Descartes' *Principia* provides a systematic statement of his metaphysics and natural philosophy. The first part, *De principiis cognitionis humanae* (Of the Principles of Human Knowledge) deals with the nature of motion, rest, force, and action. He defines motion in Book II and distinguishes the difference between translation and "the force that brings about this translation." Descartes was careful in the *Principia* to qualify his mechanistic Copernican views with the idea that all motion is relative. "His vortical theory allowed him to argue that since the earth is at rest in its surrounding medium it remains unmoved, although it, together with its entire vortex, necessarily circles the sun" (Norman). Descartes' system represents a truly comprehensive look at the universe in a fundamentally new, mechanistic and non-teleological way. His vortex theory was the starting point for all serious work in physical theory in the mid-17th century, including Newton. The fourth and final part of the work contains the first scientific theory of magnetism. Guibert, p. 118; Tchemerzine II, p. 787; Norman 622.



Ant. Æmilii. 1644.

AN IMPORTANT ASSOCIATION COPY. Anton Aemelius, was a Dutch natural philospher who was a friend of Reneri, the first disciple and loyal supporter of Descartes. He was a key figure in the bitter dispute at the University of Utrecht between 1639 and 1640. "Reneri died in the middle of March 1639, and a friend of his Anton Aemelius, delivered a funeral oration at the University which extolled the virtues of Cartesian natural philosophy over the philosophies of the traditional professors at Utrecht. The publication of the eulogy, which gave it an official stamp of approval, caused some consternation among these professors, and the situation was exacerbated when Henri le Roy, better known as Regius, took up the Cartesian cause in a polemical and abrasive manner." The dispute that ensued turned into a lengthy public brawl in which Descartes and his philosophical doctrines became the subject of attack. See Stephen Gaukroger, *Descartes: an intellectual biography* (Oxford, 1997), pp. 352-53.



AMSTELODAMI,

APUD LUDOVICUM ELZEVIRIUM,

ANNO CIↃ IↃC XLIV.

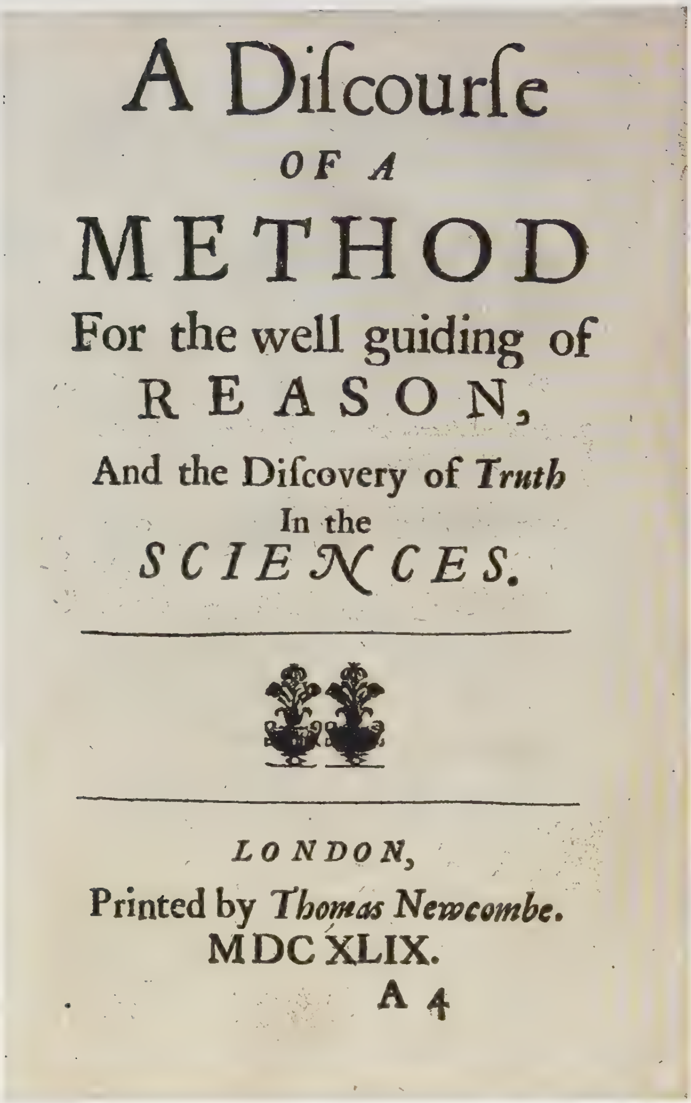
Cum Privilegiis.

autor dd.

[*Bound with*:]

DESCARTES, René. *Specimina philosophiae: seu dissertatio de methodo ... dioptrice, et meteora.* Translated into Latin from French by Estienne de Courcelles. Amsterdam: Louis Elzevir, 1644. 4°. Printer's woodcut device on title, numerous woodcut illustrations and diagrams in text. FIRST LATIN EDITION of the *Discours* (see lot 407), which omits the treatise *Géometri*. It includes the first appearance of the Cartesian sound-bite: "cogito, ergo sum." Although separate works, these two Elzevir publications often appear together. Guibert, p. 104; NLM/Krivatsy 3116; Tchemerzine II, p. 777; Willems 1008; Norman 623.

Estimate: $8,000-12,000



A Diſcourſe
OF A
METHOD
For the well guiding of
REASON,
And the Diſcovery of *Truth*
In the
SCIENCES.

LONDON,
Printed by *Thomas Newcombe.*
MDCXLIX.
A 4

(actual size)

5409

DESCARTES, René (1596-1650). *A Discourse of a Method for the well guiding of Reason, and the Discovery of Truth in the Sciences.* London: Thomas Newcombe, 1644.

8° (144 x 92 mm). Collation: A-I^8. 72 leaves, paginated. Contemporary English blind-ruled speckled sheep (minor wear to extremities). *Provenance:* JOHN DRINKWATER (1882-1937), English playwright and poet (signature on blank leaf A2, dated 1920, and his lengthy pencil inscription discussing a variant imprint in the British Musuem and the rarity of this edition below: "...Neither Quartitch nor Chatto have seen another copy").

VERY RARE FIRST EDITION IN ENGLISH. This copy with integral title-page (A4) and shorter imprint which reads: "Printed by Thomas Newcombe" and date. A variant imprint exists with "for John Holden" added to the imprint (see Wing D-1129). Drinkwater's note mentions the BM copy has a cancel title-page and the longer imprint. Wing D-1129A (locating 5 copies, one in the U.K.); Norman 624.

Estimate: $3,000-4,000

○410

DESCARTES, René (1596-1650). *Les Passions de l'ame.* Amsterdam: Louis Elzevier, 1649.

8° (160 x 101 mm). Printer's woodcut device on title-page. (A few minor stains, otherwise fine). Contemporary vellum (slightly soiled, spine label chipped). *Provenance*: P. Warwick (early signature on title-page), possibly Sir Philip Warwick, the younger (d. 1683), ambassador and envoy to Sweden in 1680; Earl of Hopetoun (bookplate).

FIRST EDITION. With publication of *Les passions de l'âme* in 1649, Descartes set out to provide a comprehensive account of the various ways in which the mind and body interact. The first part gives a general account of the mind and body relationship and discusses the general nature of passions; the second part consists of a classification of the passions; and the third part is an account of particular passions. "Descartes believed the soul to be a definite entity, giving rise to thoughts, feelings, and acts of volition. He was one of the first to regard the brain as an organ integrating the functions of mind and body" (Garrison-Morton). Garrison-Morton 4965; Guibert, p. 150; Tchemerzine II, p. 792; Norman 625.

Estimate: $3,000-4,000

○411

DESCARTES, René (1596-1650). *Les Passions de l'ame.* Paris: Henry le Gras, 1649.

8° (160 x 94 mm). Woodcut device on title-page. (Some very minor light marginal dampstains.) Contemporary vellum (some minor soiling). *Provenance*: Charles William Stokes (bookplate).

FIRST EDITION, variant issue, published in Paris by Henry le Gras. The printing of the first edition of *Les Passions de l'âme* was divided between the Elzeviers in Amsterdam and Henry le Gras in Paris. Guibert, p. 150; NLM/Krivatsy 3135; Tchemerzine II, p. 791; Norman 626.

Estimate: $3,000-4,000

○412

DESCARTES, René (1596-1650). *De homine figuris.* Translated from French into latin by Florentius Schuyl (1619-1669). Leyden: Petrus Leffen and Franciscus Moyardus, 1662.

4° (202 x 154 mm). Printer's woodcut device on title-page, 10 engraved plates, one with overlays showing the interior regions of the heart (one flap nearly detached), numerous engravings and woodcuts in text. (Some minor browning and light spotting.) Contemporary Dutch vellum (covers a bit bowed).

Provenance: Johann Freidrich Blumenbach (1752-1840), professor of medicine at Göttingen, was the father of modern anthropology and one of the first scientists to study human beings as objects of natural history (bookplate); E.F.G. Herbst; by descent to Robert M. Herbst.

J.F. BLUMENBACH'S COPY OF THE FIRST EDITION OF THE FIRST TEXTBOOK OF PHYSIOLOGY. Originally written as a physiological appendix to the *Discours*, this work was suppressed after the condemnation of Galileo in 1663, fearing that his mechanistic view of the human body might be considered heretical. "Descartes considered the human body a material machine, directed by a rational soul located in the pineal body. This book was the first attempt to cover the whole field of 'animal physiology'" (Garrison-Morton). Descartes understood the significance of Harvey's discovery, especially the circulatory motion of the blood, and includes a long description of the circulation of blood in this work. "Without Descartes, the seventeenth-century mechanization of physiological conceptions would have been inconceivable" (DSB).

This unauthorized edition is noted with title-pages in two states by Guibert, without priority. The title-page of this copy corresponds with Guibert's first noted (the second has the printer's name reversed in the imprint and bears a different printer's device). The first authorized edition of *De homine figuris* was published in French in 1664 (see lot 414). Garrison-Morton 574; Grolier *Medicine* 31; Guibert, pp. 196-97; NLM/Krivatsy 3120; Osler 931; Tchemerzine II, p.798 (describing two variants of the title-page, no priority mentioned); Waller 2376; Wellcome II, p. 453; Norman 627.

Estimate: $3,000-4,000

413

DESCARTES, René (1596-1650). *Le monde ... ou, le traité de la lumiere. -Discours ... touchant le mouvement et le repos. -Discours de la fiévre.* Paris: Theodore Girad [*sic*], 1664.

8° (164 x 102 mm). Numerous woodcut illustrations, including a few full-page and one folding. Contemporary French mottled calf, spine gilt. *Provenance*: Renati Morel (faint early signature on title-page); Lucien Dard (bookplate).

FIRST EDITION, with title a cancel and Girard's name mispelled in imprint. In this posthumously published treatise Descartes gives an account of cosmogony and cosmology as products simply of matter in motion, making the laws of motion the ultimate "laws of nature" and all scientific explanation ultimately mechanistic. "Descartes's first attempt to explain the formation of the physical world was composed during the 1630s but suppressed, like *L'homme*, after Galileo's condemnation" (Norman).

The privilege for this work was shared by Jacques le Gras with Michel Bobin, Nicolas le Gras and Theodore Girard. Several issues exist with various imprints and title cancels (see Guibert), the imprint in this copy agrees with Tchemerzine (a) which he calls "Edit. originale." Guibert, pp. 209-13; NLM/Krivatsy 3133; Tchemerzine II, p. 801 (a); Norman 629.

Estimate: $1,500-2,500

414

DESCARTES, René (1596-1650). *L'homme ... et un traitté de la formation du foetus ... avec les remarques de Louys de la Forge.* Edited by Claude Clerselier (1614-1684), Louis de la Forge (fl. 1632-1666), and Gérard van Gutschoven. Paris: Charles Angot, 1664.

4° (234 x 174 mm). Printer's woodcut device title-page, numerous woodcut illustrations in text. (A few slight marginal repairs, a few leaves with gutter margins stained.) Later vellum. *Provenance*: Louis Pierre Gratiolet (1815-1865), well-known French neurophysiologist (small ink stamp on title-page: "P. Gratiolet"); Jacobi Florentii Demory (library stamps on title-page verso).

FIRST EDITION IN FRENCH, and the first to contain Descartes' "De homine figuris," an attempt to explain reproductive generation in mechanistic physiological terms. This edition was also the first to contain the extensive commentary by Louis de la Forge. Guibert, pp. 198-99; Tchemerzine II, p. 799; *Heirs of Hippocrates* 469; NLM Krivatsy 3117; Wellcome II, p.453; Norman 628.

Estimate: $1,000-1,500

415

DEVENTER, Hendrik van (1651-1724). *Manuale operatien, I. deel. Zijnde een nieuw ligt voor vroed-meesters en vroed-vrouwen...* The Hague: for the author, 1701.

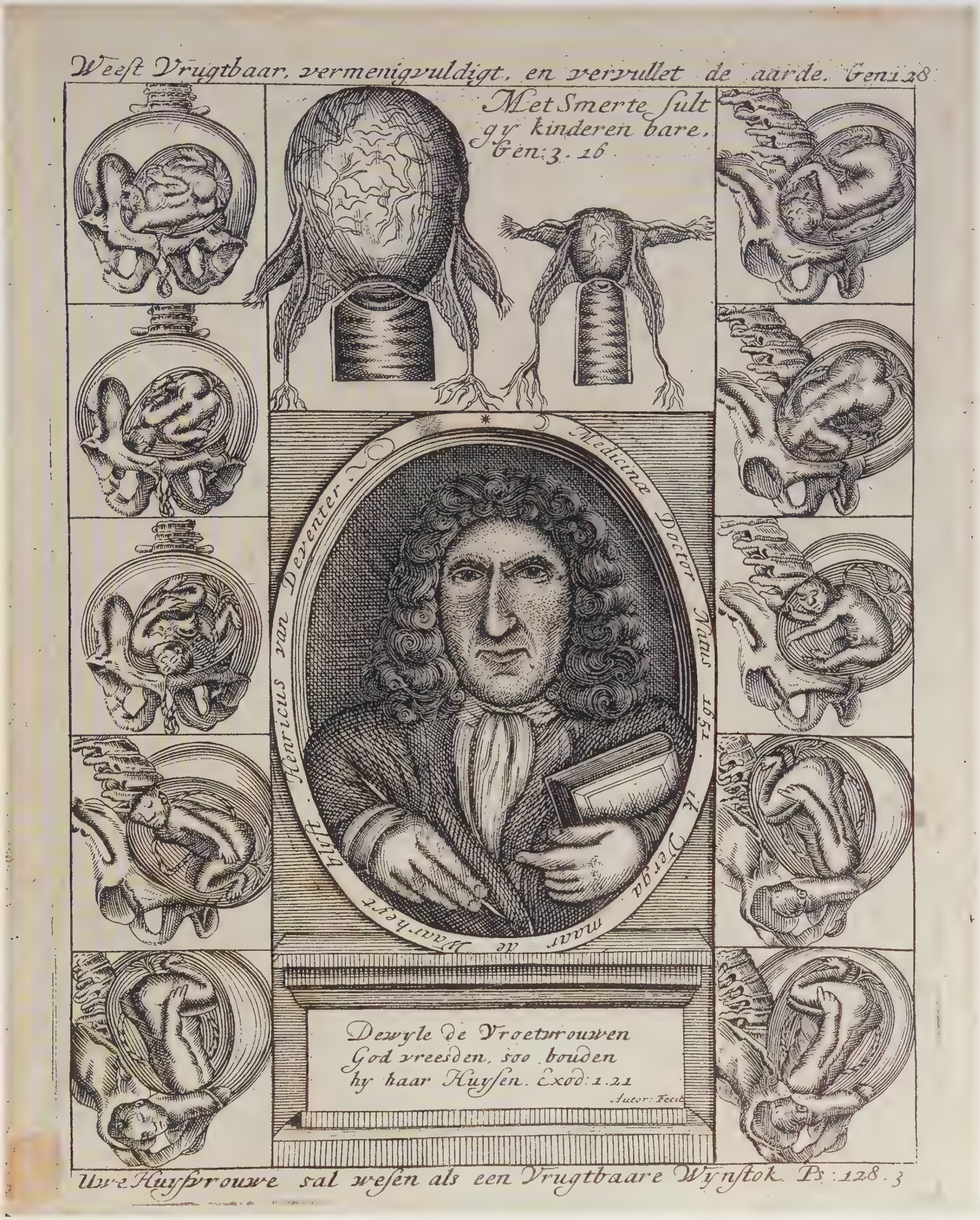
4° (195 x 155 mm). Engraved portrait frontispiece and 35 engraved plates (several folding) by Phi. Bouttats (Zz1 slit for cancelling, with few early repairs.) Contemporary sheep, spine gilt, with gilt-lettered red morocco label (corners slightly bumped).

FIRST EDITION of Deventer's work on midwifery, published privately by the author. "This work gives the first accurate description of the female pelvis and its deformities, and the effect of the latter in complicating labour" (Garrison-Morton). The unflattering portrait frontispiece of the author was apparently drawn and engraved by himself. Garrison-Morton 6253; Norman 631.

[*Bound with:*]

DEVENTER, Hendrik van. *Nadeer vertoog van de sware barigen, en van de toetsteen en't schild der vroedvrouwen... het tweede deel.* Delft: Reinier Boilet, 1719. 4°. FIRST EDITION, of the second part of the *Manuale operatien.* Norman 632.

Estimate: $3,000-4,000


Weeſt Vrugtbaar, vermenigvuldigt, en vervullet de aarde. Gen:1.28
Met Smerte ſult gy kinderen bare, Gen:3.16
Henricus van Deventer. Medicinæ Doctor Natus 1651. ik Vergaa maar de Waarheit blyft.
Dewyle de Vroetvrouwen God vreesden, soo bouden hy haar Huyſen. Exod:1.21
Autor: Fecit
Uwe Huyſvrouwe sal weſen als een Vrugtbaare Wynſtok. Ps:128.3

415 *(actual size)*

416

DIDEROT, Denis (1713-1784) and Jean le Rond d'ALEMBERT (1717-1783), editors. *Encyclopédie, ou dictionnaire raisonné des sciences, des arts et des métiers, par une société de gens de lettres.* [I-VII] Paris: Briasson, David l'aîné, Le Breton, Durand, 1751-1757; [VIII-XVII] Neuchâtel: Samuel Faulche, 1765 — *Recueil de planches, sur les sciences, les arts libéraux, et les arts méchaniques, avec leur explication.* [I-XI] Paris: Briasson, David, Le Breton, Durand, 1762-1772. — *Supplement à l'Encyclopédie, ou Dictionnaire raisonné des sciences, des arts et des métiers, par une société de gens de lettres.* Edited by Jean Baptiste René Robinet (1735-1820). [I-IV] Amsterdam: M.M. Rey, 1776-1777. — *Suite du recueil de planches, sur les sciences, les arts libéraux, et les arts méchaniques, avec leur explication.* Paris: Panckoucke, Stoupe, Brunet; Amsterdam: M.M. Rey, 1777. — *Table analytique et raisonnée des matieres contenues dans les XXXIII volumes in-folio du Dictionnaire ds sciences, des arts et des métiers, et dans son supplément.* Edited by Pierre Mouchon (1733-1797). [I-II] Paris: Pancoucke; Amsterdam: Marc-Michel Rey, 1780.

35 volumes, 2° (386 x 250 mm). Collation and contents as in Lough and Schwab with these exceptions: *Planches*, livraison 6, lacks leaf π4, *Avis aux relieurs*; *Planches*, livraison 10, plates LXXXVI rr - CV nnn are bound at the end of the volume; *Supplément*, vol. 2, quire 4A is bound after quire 4B; a few other minor variations in binding order not noted here. Engraved title page by B.L. Prévost after C.N. Cochin; 2,796 engraved plates (2,581 in *Planches*, 215 in *Suite de planches*, many folding); 1 large folding engraved Tree of Knowledge plate in *Table*, vol. 1; several inserted folding typographical tables as noted by Schwab. A complete set: the numbers of plates given on the title pages total 3,129 because double, triple or quadruple folding plates are counted as 2, 3 or 4. (Occasional browning, a few small paper flaws to blank margins, a number of témoins from corners folded down during binding, two leaves with a clean tear across text or plate.) Contemporary French olive-green morocco, spines gilt, red morocco lettering-pieces, marbled edges and end-leaves (minor wear, spines uniformly tanned; plate volumes labelled as follows: livraison 1 as vol. XI, livraison 2/1 as vol. I, livraison 2/2 as vol. II, livraison 3 as vol. III, etc.; *Suite de planches* labelled vol. XII).

FIRST EDITION of one of the most splendid products of the Enlightenment and one of the great landmarks of Western intellectual history. "A monument in the history of European thought; the acme of the age of reason; a prime motive force in undermining the *Ancien régime* and in heralding the French Revolution; a permanent source for all aspects of eighteenth-century civilization — and a classic example of how not to arrange a work of reference" (PMM). "The greatest encyclopedia of science, which had widespread effect in establishing uniformity of terminology, concept, and procedure in all fields of science and technology" (Grolier/Horblit). The majority of the 71,818 entries were written by the editors, Diderot and D'Alembert, followed by Baron d'Holbach, who contributed about 400 articles. Among the other collaborators were Rousseau, Voltaire, Montesquieu, Buffon, Marmontel, Concorcet, Necker and Turgot.

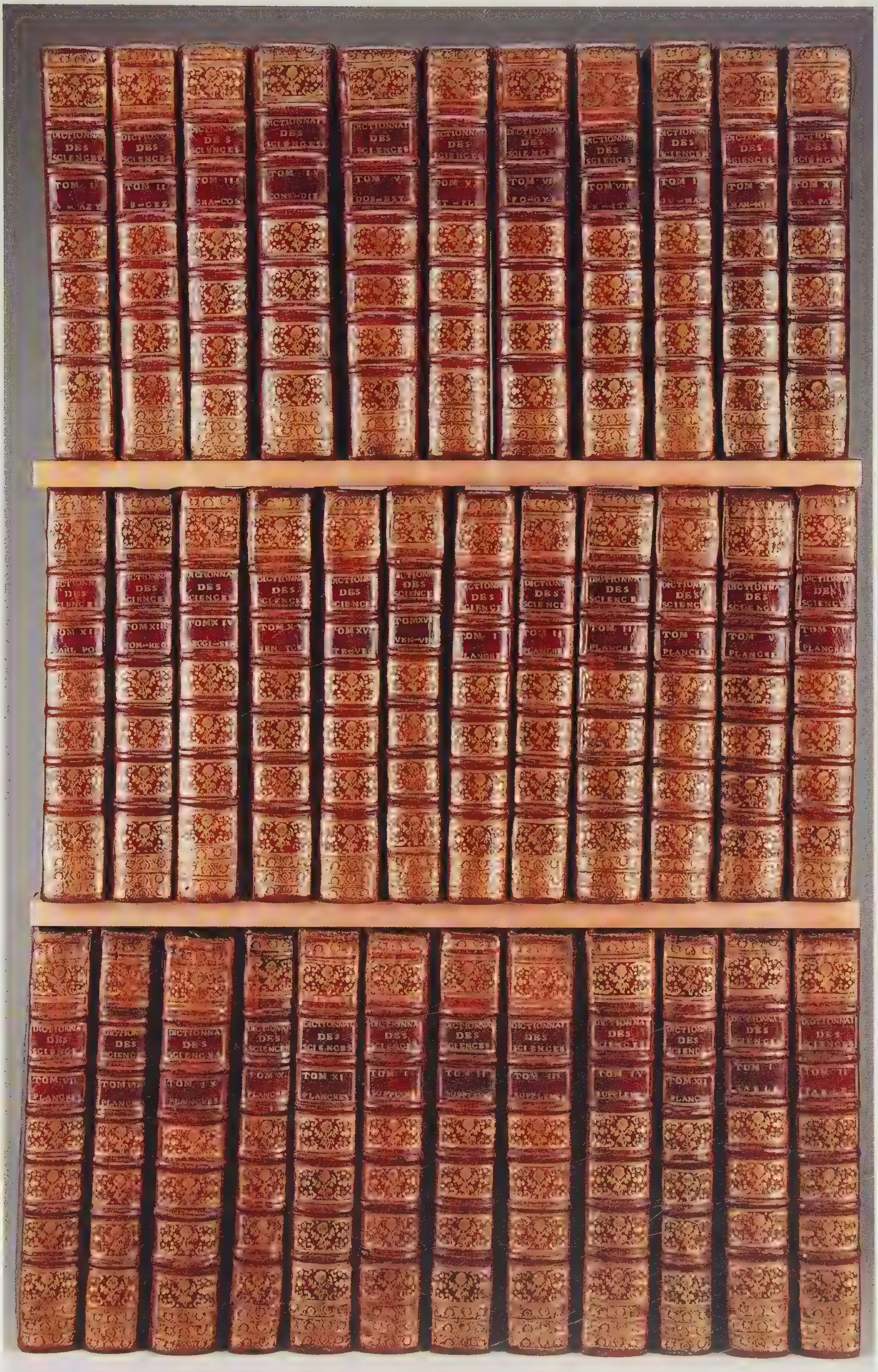
The first seven volumes of the *Encyclopédie* were published in Paris under a royal privilege. After this was withdrawn in 1759 printing continued clandestinely, and the last ten volumes were issued under the false imprint of Samuel Faulche, Neuchâtel. The plates, not being considered subversive, were published in Paris. Subsequently the work was reprinted, in whole or in part, in several editions that were designed to look like the original, even imitating the original imprints. There are, nevertheless, minor differences of setting and typography. The present set has all the points of the true first edition, as set forth by Schwab and Lough. The four volumes of the supplement were published in one edition only, but in two issues, one with a Paris imprint, the other with an Amsterdam imprint; the supplemental volume of plates has the imprint Paris and Amsterdam.

A FINE COPY, IN A RARE CONTEMPORARY MOROCCO BINDING.

Grolier/Horblit 25b; John Lough, *Essays on the Encyclopédie of Diderot and D'Alembert*, London 1968; PMM 200; Richard N. Schwab, W.E. Rex, and J. Lough, *Inventory of Diderot's* Encyclopédie, I (1971), VII (1984) [*Studies on Voltaire and the Eighteenth Century* 80, 223]; Norman 637.

(35)

Estimate: $40,000-60,000


DICTIONNA DES SCIENCES
TOM II B–CEZ
TOM III CHA–CON
TOM V DO–EST
TOM XIII POM–REG
TOM XV VEN–VI
TOM I PLANCHES
TOM I SUPPLEM

417

DIGBY, Sir Kenelm (1603-1665). *Two Treatises. In the one of which, the Nature of Bodies; in the other, the Nature of Mans Soule; is looked into: in way of discovery, of the Immortality of Reasonable Soules*. Paris: Gilles Blaizot, 1644.

2° (416 x 280 mm). (Title-page lightly soiled and with lower fore-corner frayed, some minor marginal worming at end, some leaves lightly browned, internal tear on two fore-margins.) Contemporary English calf (rebacked, corners repaired). *Provenance*: Constantia Dupplin (early signature on front flyleaf).

FIRST EDITION OF DIGBY'S INTRODUCTION OF GASSENDIAN AND CARTESIAN ATOMISM INTO ENGLAND. In this work Digby intended to prove the immortality of the rational soul and its distinction from the material body. The first treatise, *The Nature of Bodies*, contains the first fully developed atomistic system of the seventeeth century and introduced Gassendian and Cartesian atomism into England—providing Boyle and Newton with the foundation for their great achievements in chemistry and physics. Digby's first treatise also contains the first important defense in English of Harvey's theory of the circulation. A VERY LARGE COPY. Duveen, pp. 171-72; NLM/Krivatsy 3256; Thorndike VII, pp. 498-502; Wing D-1448; Norman 639.

Estimate: $1,000-1,500

418

DONNE, John (1573-1631). ΒΙΑΟΑΝΑΤΟΣ. *A declaration of that paradox or thesis that self-homicide is not so naturally sinne that it may never be otherwise*. London: John Dawson, 1644.

4° (184 x 138 mm) (some minor worming, occasionally effecting some letters. Some browning to text). Contemporary blind-ruled sheep (repaired, new red leather gilt spine label, glue repairs to spine). *Provenance*: The Hon. Brigadier Cholmondeley (engraved armorial bookplate); Sir William Constable (engraved armorial bookplate); J. Jortin (signature); occasional pencil marginalia.

FIRST EDITION, FIRST ISSUE. Published posthumously, by the author's son, also John, possibly against the author's wishes. ΒΙΑΟΑΝΑΤΟΣ. was written before the author took Holy Orders in 1615, and probably during the preceding years, which the author devoted almost exclusively to the study of theology. The earliest mention of the book is in a letter dated 13 February 1614, which suggests that it had been written not long before. The author later became Dean of St Paul's, and was known as one of the most eloquent and learned preachers of the day. Wing D-1858; Norman 650.

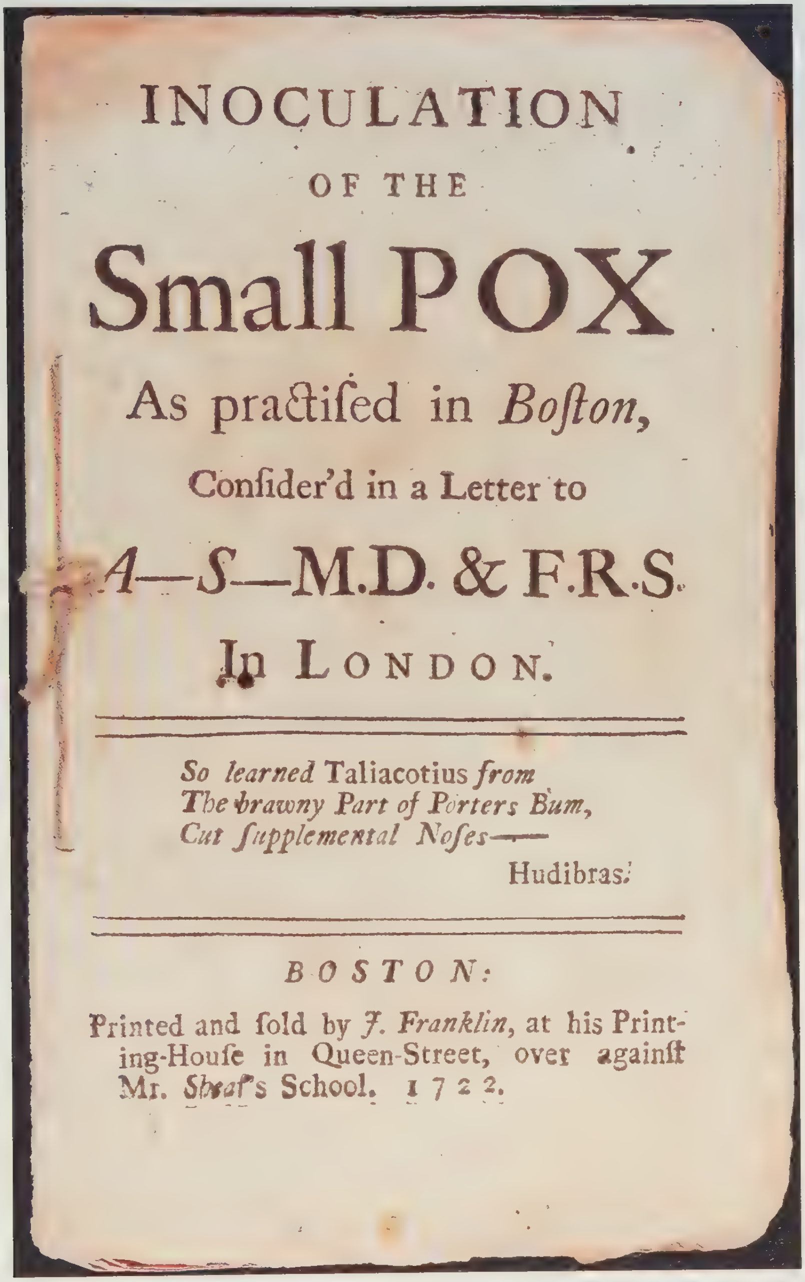
Estimate: $1,000-2,000

419

[DOUGLASS, William (1691-1752)]. *Inoculation of the Small Pox as practised in Boston, Consider'd in a Letter to A—S—M.D. & F.R.S. in London*. Boston: James Franklin, 1722.

4° (168 x 101 mm). Stabbed as issued, uncut; cloth folder and quarter morocco slipcase.

EXTREMELY RARE FIRST EDITION OF THIS EARLY AMERICAN MEDICAL BOOK. Early in the summer of 1721 a severe epidemic of smallpox broke out in Boston, and Zabdiel Boylston was prevailed upon by Cotton Mather to carry out inoculations for smallpox during the epidemic. Douglass, the only academically trained physician in Boston at the time, strongly opposed Mather's views on inoculation, fearing it might spread the epidemic instead of containing it. "He accordingly published a series of four controversial 'inoculation' pamphlets, three of which were anonymous" (DAB). Douglass was personally concerned since he had some time earlier lent Mather his own numbers of the *Philosophical Transactions* which contained the accounts of



INOCULATION
OF THE
Small POX
As practiſed in *Boſton*,
Conſider'd in a Letter to
A—*S*—M.D. & F.R.S.
In LONDON.

So learned Taliacotius *from*
The brawny Part of Porters Bum,
Cut ſupplemental Noſes——
Hudibras.

BOSTON:
Printed and ſold by *J. Franklin*, at his Printing-Houſe in Queen-Street, over againſt Mr. *Sheaf*'s School. 1722.

(actual size)

inoculation by Timonius and Pylermus which were carried out in the Levant. This anonymous pamphlet was originally written as a letter to the British physician, Alexander Stuart. His postscript in the letter reads: "If I have been too rough with any Persons Character, & it afterwards appear that he acted in meer Zeal (tho' mistaken Zeal) for the Good of his Neighbours, I heartily ask his Pardon."

It was printed by James Franklin, Benjamin's older brother and proprietor of the *New England Courant*, who also opposed inoculation in Boston. Evans 2332; Garrison-Morton 5412; Guerra a-69; Norman 652A.

Estimate: $8,000-12,000

420

DOUGLASS, William (1691-1752). *The Practical History of a New Epidemical Eruptive Military Fever, with an Angina Ulcusculosa which prevailed in Boston New-England in the Years 1735 and 1736.* Boston: Thomas Fleet, 1736.

4° (179 x 114 mm). (Some minor dampstaining.) Modern half morocco gilt, uncut. *Provenance*: 19th-century marginal note on first page of text.

FIRST EDITION CONTAINING THE FIRST ADEQUATE CLINICAL DESCRIPTION OF SCARLET FEVER. "From his account it is clear that this was a genuine epidemic of scarlet fever, and is indeed the first adequate clinical description of the disease, for it antedates that of John Fothergill by twelve years. Douglass described fully the eruption and desquamation, and spoke of greater susceptibility of children and young persons. He moreover carried out necropsies on individuals dead of the disease" (DAB). VERY RARE. Austin 690; Evans 4012; Garrison-Morton 5076; Guerra a-145; Norman 653.

Estimate: $4,000-6,000

421

DUDLEY, Dud (1599-1684). *Metallum Martis: or, Iron made with Pit-coale, Sea-coale, &c. And with the same Fuell to Melt Fine Imperfect Mettals, and Refine perfect Mettals.* London: T.M. for the author, 1665.

8° (142 x 90 mm). Woodcut folding plan (defective), also present in facsimile. (Title-page and errata leaf lined on verso, stained and browned throghout.) Modern calf antique. *Provenance*: F. Cartwright, Dudley 1775 (inscription on B1v and possibly his corrections throughout, mostly following the errata). In the preface to his 1854 reprint of Dudley's handbook, John Bagnall (see below) undoubtedly refers to this copy when he describes the copy used for the reprint as having belonged to Cornelius Cartwright of Dudley (and lacking half the map at end).

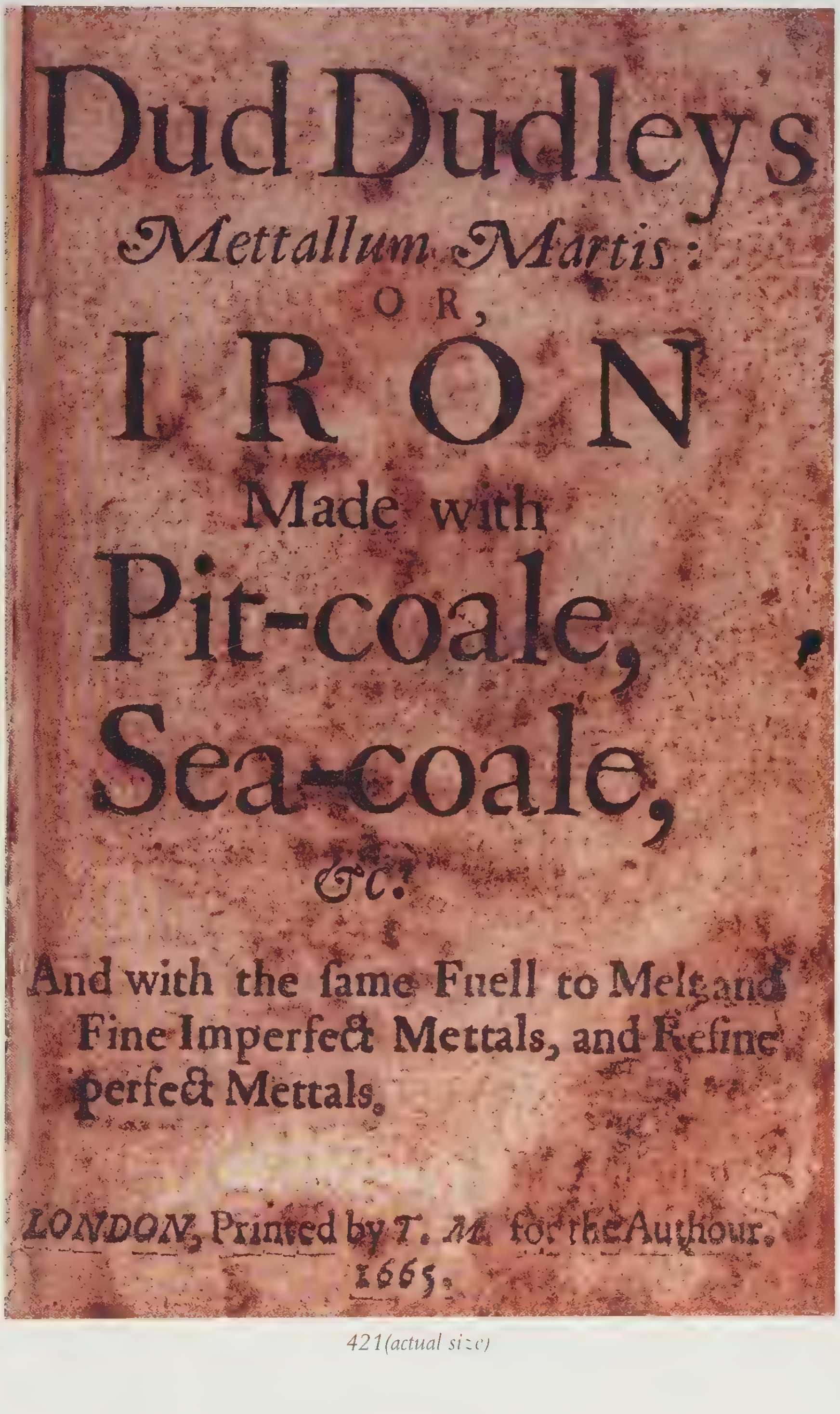
EXCEEDINGLY RARE FIRST EDITION of this treatise on the use of raw coal in place of charcoal in iron production. As forest supplies diminished with the expansion of the iron industry in England, atttempts had been made to substitute mineral coal for charcoal in iron production as early as the beginning of the 17th century. In his *Metallum martis*, Dud Dudley claimed success in this operation, but he refrained from revealing his method. His successful claims must "in the absence of confirmatory evidence, be regarded with scepticism" (Wolf). Partington II, pp. 60-61; Singer, *Technology* IV, p. 99; Wing D-2438; Wolf I, p. 542; Norman 663.

[*With*:]

DUDLEY, Dud. *Dud Dudley's Mettallum Martis* - John ROVENSON. *A Treatise of Metallica* - Simon STURTEVANT. *Metallica, or The Treatise of Metallica.* London: T. Simpson for Hamilton, Adams, & Co., [1854]. 4° (212 x 161 mm). Folding genealogical table as frontispiece and lithographed plate in first work. Original beige cloth (soiled). The second reprint of Dudley's treatise also includes reprints of works by Sturtevant and Rovenson, originally published 1612 and 1613, respectively. Norman 664.

(2)

Estimate: $2,500-3,500



Dud Dudley's
Mettallum Martis:
OR,
IRON
Made with
Pit-coale,
Sea-coale,
&c.

And with the ſame Fuell to Melt and
Fine Imperfect Mettals, and Refine
perfect Mettals.

LONDON, Printed by *T. M.* for the Authour.
1665.

421(*actual size*)

›422

DU LAURENS, André (1558-1609). *Opera omnia.* Edited by Guido Patini. Paris: Martin Durand, 1628.

2 volumes, 4° (221 x 162 mm). Title-page in Vol. 2 printed in red and black. Engraved frontispiece and portrait in Vol. 1 by L. Gaultier, folding engraved plate in Vol. 2 (some tears repaired on verso). (Some worming in both volumes, mostly marginal, occasional browning and minor spotting). Contemporary Dutch vellum with overlapping edges. *Provenance*: Dr. Nicolaus Tulp (1593-1674), anatomy teacher and physician of Amsterdam (see lot 831), celebrated in Rembrandt's masterpiece, "The Anatomy Lesson of Dr. Nicolaus Tulp" (inscription on front free endpaper in each volume: "Nicolai Tulpii" and motto "Deo frui finis hominis"); Henry le Court (his bibliographical notes on the front free endpaper in Vol. 1, laid in sheet of notes, and bookplate in each volume).

Second collected edition in Latin. "This collection contains du Laurens's *Historia anatomica, De crisibus, De strumis*, and his tracts on eye diseases, melancholy and other mental afflictions, old age, catarrh, arthritis, elephantiasis and venereal disease" (Norman). The engraved plate in the second volume shows Henri IV bestowing the "royal touch" on a scrofula victim. This copy contains the variant Durand imprint on title-pages; the engraved title lists Durand among the four booksellers who published the work. AN INTERESTING ASSOCIATION COPY. NLM/Krivatsy 3504 (Foüet imprint); Wellcome 1944; Waller 2633; Norman 669. (2)

Estimate: $1,000-1,500

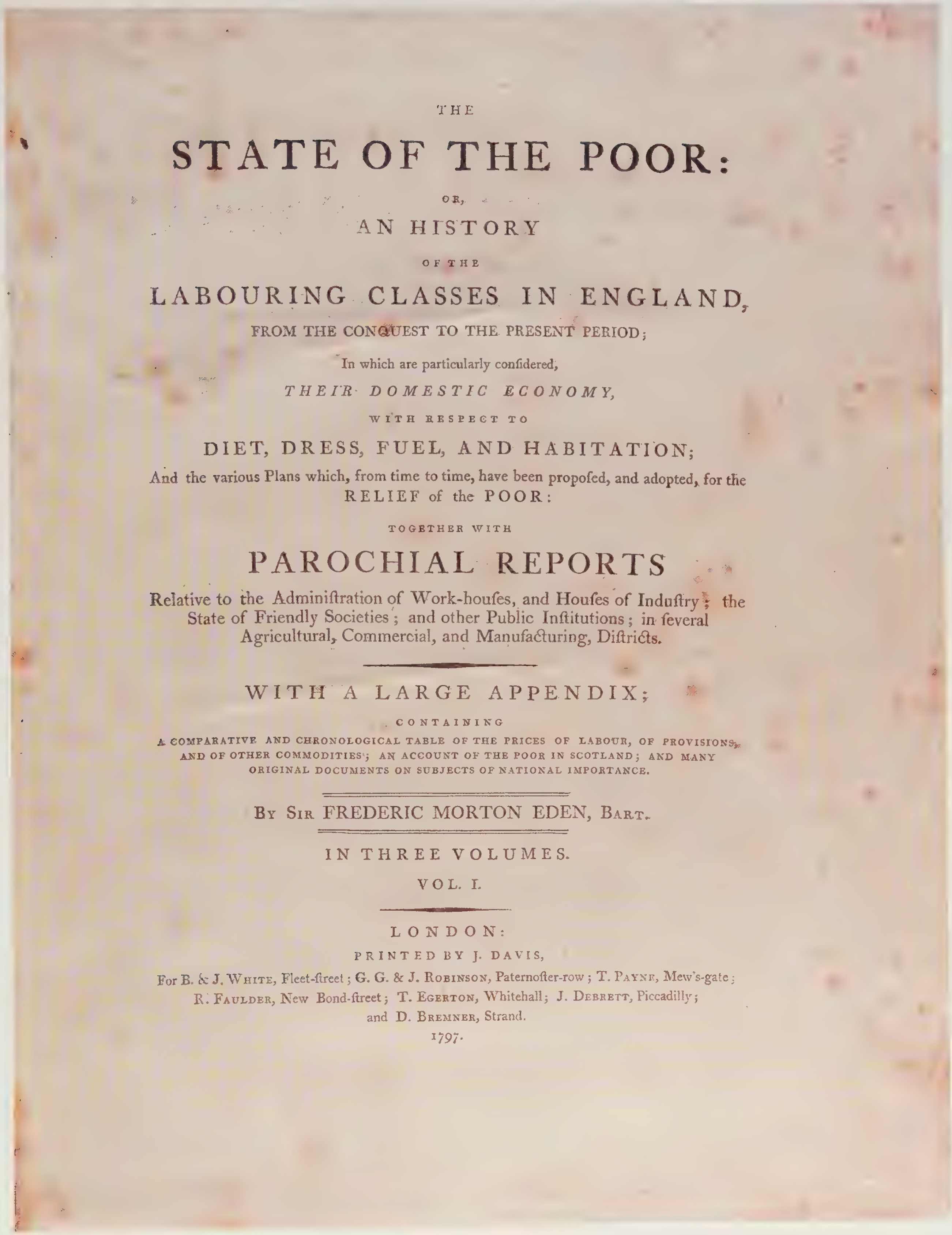
›423

DU VERNEY, Guichard Joseph (1648-1730). *Traité de l'organe de l'ouie, contenant la structure, les usages & les maladies de toutes les parties de l'oreille.* Paris: Estienne Michallet, 1683.

12° (155 x 90 mm). 16 folding engraved plates (plate 1 lightly browned and with wormtrack in lower margin affecting explanatory text, one margins frayed, a few clean tears). (Some heavy wormtracks on lower margins of last two gatherings, some minor light marginal browning.) Contemporary speckled calf, spine gilt (joints and extremities rubbed). *Provenance*: Hector Periat (ink stamp on title-page).

FIRST EDITION OF THE FIRST MONOGRAPH ON THE STRUCTURE, FUNCTION AND DISEASES OF THE EAR. "Du Verney corrected the erroneous belief that the Eustachian tube was an avenue for breathing or hearing by showing that it was simply the channel through which air to the tympanic cavity is renewed. He correctly explained the mechanism of bone conduction and gave a clear and accurate account of the bony labyrinth. He greatly advanced knowledge in the physiology of hearing and his theory of hearing and communication of sound anticipated that of Helmholtz. Du Verney also studied ear diseases and searched for scientific explanations of earache, deafness, and tinnitus. His therapy was chiefly empirical and consisted mostly of botanical remedies" (*Heirs of Hippocrates*). Garrison-Morton 1545; *Heirs of Hippocrates* 664; Grolier *Medicine* 36; NLM/Krivatsy 3590; Waller 2670; Wellcome II, p. 506; Norman 674.

Estimate: $2,000-3,000



THE

STATE OF THE POOR:

OR,

AN HISTORY

OF THE

LABOURING CLASSES IN ENGLAND,

FROM THE CONQUEST TO THE PRESENT PERIOD;

In which are particularly conſidered,

THEIR DOMESTIC ECONOMY,

WITH RESPECT TO

DIET, DRESS, FUEL, AND HABITATION;

And the various Plans which, from time to time, have been propoſed, and adopted, for the
RELIEF of the POOR:

TOGETHER WITH

PAROCHIAL REPORTS

Relative to the Adminiſtration of Work-houſes, and Houſes of Induſtry; the
State of Friendly Societies; and other Public Inſtitutions; in ſeveral
Agricultural, Commercial, and Manufacturing, Diſtricts.

WITH A LARGE APPENDIX;

CONTAINING

A COMPARATIVE AND CHRONOLOGICAL TABLE OF THE PRICES OF LABOUR, OF PROVISIONS,
AND OF OTHER COMMODITIES; AN ACCOUNT OF THE POOR IN SCOTLAND; AND MANY
ORIGINAL DOCUMENTS ON SUBJECTS OF NATIONAL IMPORTANCE.

BY SIR FREDERIC MORTON EDEN, BART.

IN THREE VOLUMES.

VOL. I.

LONDON:
PRINTED BY J. DAVIS,
For B. & J. WHITE, Fleet-ſtreet; G. G. & J. ROBINSON, Paternoſter-row; T. PAYNE, Mew's-gate;
R. FAULDER, New Bond-ſtreet; T. EGERTON, Whitehall; J. DEBRETT, Piccadilly;
and D. BREMNER, Strand.
1797.

424

EDEN, Sir Frederick Morton (1766-1809). *The State of the Poor: or, an history of the labouring classes in England from the conquest to the present period.* London: J. Davis for B. & J. White [et al], 1797.

3 volumes, 4° (279 x 219 mm). (Some light foxing on some preliminaries.) Original dark gray boards, UNOPENED AND UNCUT (spines rebacked, some wear to corners and edges).

FIRST EDITION OF THE FOUNDATION WORK OF SOCIOLOGY. relying on the earliest use of systematic statistical field study. "*The State of the Poor* is one of the classical works in the history of economics ... the first [volume] contained a description of the condition of the labouring classes and an analysis of its classes; the other two supporting facts in the form of parochial reports on the administration of workhouses and houses of industry, friendly societies, and other charitable organizations, with a lengthy series of appendixes, including tables of prices and wages and a list of works on poverty and its alleviation" (PMM). The greatest value of the work is the method he adopted of obtaining and systemizing the details of such a widespread problem—the earliest use of systematic statistical field study. PMM 249; Norman 677. (3)

Estimate: $15,000-20,000

425

EULER, Leonhard (1707-1783). *Methodus inveniendi lineas curvas maximi minimive proprietate gaudentes, sive solutio problematis isoperimetrici latissimo sensu accepti.* Lausanne and Geneva: M.-M. Bousquet, 1744.

4° (241 x 185 mm). Title printed in red and black, engraved title vignette, 5 folding engraved plates, woodcut head-piece and initial. (Minor browning to a few gatherings.) Contemporary calf, spine gilt (rubbed, small tear to foot of spine).

FIRST EDITION of Euler's most valuable contribution to mathematics in which he developed the concept of the calculus of variations. Dibner *Heralds of Science* 101; Grolier/Horblit 28; Norman 731.

Estimate: $2,000-3,000

○426

EULER, Leonhard (1707-1783). *Introductio in analysin infinitorum.* Lausanne: M.-M. Bousquet, 1748.

2 volumes, 4° (263 x 215 mm). Titles printed in red and black with engraved title vignette, engraved frontispiece by Soubeyran after De la Monce, engraved folding portrait of dedicatee Jean Jacques Dortous de Mairan by Frequet after Tocquet and 40 engraved folding plates, folding table, woodcut head-pieces and initials (light browning and staining to a few gatherings.) ORIGINAL BOARDS, UNCUT.

FIRST EDITION. The first in a triology of works summarizing Euler's own and other discoveries in the mid-18th century. "In his *Introduction to Mathematical Analysis* Euler did for modern analysis what Euclid had done for ancient geometry. It contains an exposition of algebra, trigonometry and analytical geometry, both plane and solid, a definition of logarithms as exponents, and important contributions to the theory of equations. He evolved the modern exponential treatment of logarithms, including the fact that each number has an infinity of natural logarithms. In the early chapters there appears for the first time the definition of mathematical function, one of the fundamental concepts of modern mathematics. From Euler's time mathematics and physics tended to be treated algebraically, and many of his principles are still used in teaching mathematics" (PMM 196). Norman 732.

(2)

Estimate: $3,000-4,000

○427

EULER, Leonhard (1707-1783). *Institutiones calculi differentialis cum eius usu in analysi finitorum ac doctrina serierum.* St. Petersburg: [i.e. Berlin: Officina Michaelis] for the Imperial Academy of Science, 1755.

4° (246 x 200 mm). Half calf antique and marbled boards, spine with gilt-lettered morocco label. *Provenance:* London Institution (ink stamp on title and last leaf); University of London (withdrawn stamp on title-verso).

FIRST EDITION. The second volume of Euler's trilogy on mathematical analysis. Norman 733.

Estimate: $1,200-1,800

○428

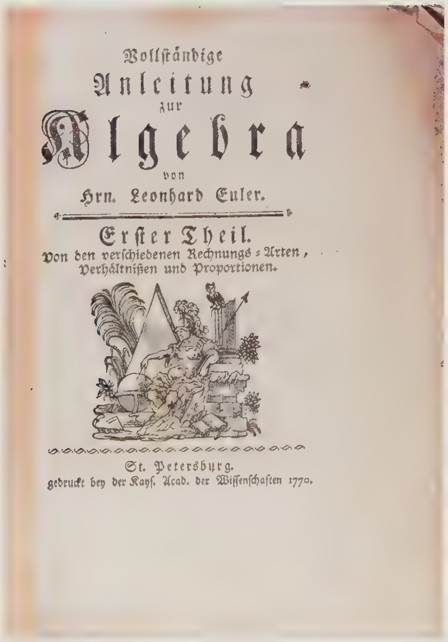
EULER, Leonhard (1707-1783). *Institutionum calculi integralis.* St. Petersburg: Imperial Academy of Science, 1768-1770.

3 volumes, 4° (266 x 218 mm). Engraved folding plate. Contemporary half calf, spines gilt, uncut (minor wear to edges and spine ends).

FIRST EDITION. The above "exhibits Euler's numerous discoveries in the theory of both ordinary and partial differential equations, which were especially useful in mechanics" (DSB). Together with the *Introductio in analysin infinitorum* and the *Institutiones calculi differentialis* it forms Euler's trilogy on mathematical analyis. A supplement was published in 1794 (not included here). Norman 734.

(3)

Estimate: $2,000-3,000



Vollſtändige
Anleitung
zur
Algebra
von
Hrn. Leonhard Euler.

Erſter Theil.
Von den verſchiedenen Rechnungs-Arten,
Verhältnißen und Proportionen.

St. Petersburg.
gedruckt bey der Kayſ. Acad. der Wiſſenſchaften 1770.

429

EULER, Leonhard (1707-1783). *Vollständige Anleitung zur Algebra.* St. Petersburg: Imperial Academy of Science, 1770.

2 volumes, 8° (223 x 159 mm). Woodcut title vignettes. Contemporary marbled boards, uncut (cloth rebacking, paper spine labels renewed).

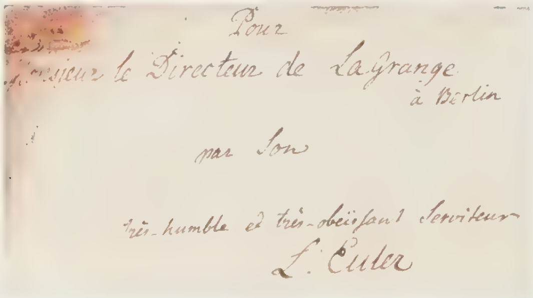
Provenance: JOSEPH-LOUIS LAGRANGE (1736-1813), mathematician who wrote the foundation work on analytical mechanics, *Méchanique analytique*, which was an extension of Newton's work on mechanics (presentation inscription inside both front covers: "Pour Monsieur le Directeur de La Grange à Berlin par Son très-humble et très-obeïssant serviteur / L. Euler," probably in the hand of an amanuensis, as Euler had become almost completely blind in 1766); E.W. Mybs (gift inscription from G. Brock in 19th-century hand inside rear covers); Wilhelm Voss (bookplates).

FIRST EDITION IN GERMAN. INSCRIBED TO THE GREAT FRENCH MATHEMATICIAN JOSEPH-LOUIS LAGRANGE and probably used by Lagrange to prepare his French edition of 1794. In the preface to his *Vollständige Anleitung zur Algebra* Euler explains that subsequent to his blindness, he had the idea, to dictate this work to his valet, in order to write a text book on algebra, easily understood by everyone. The work contains among other things the theory of cubic and biquadratic equations. It first appeared in a Russian translation at St. Petersburg in 1768-69 and was followed by numerous editions in French, English, Italian and Dutch. Euler's work was of great influence on 19th- and 20th-century texts on algebra.

Lagrange was deeply influenced by Euler's work, and his *Méchanique analytique* (see lot 580) improved the calculus of variations developed by Euler and the Bernoullis by appyling to it Euler's methods of analysis. A SUPERB ASSOCIATION COPY. Norman 735.

(2)

Estimate: $3,000-4,000



Pour
sieur le Directeur de Lagrange
à Berlin
par Son
très-humble et très-obeïssant Serviteur
L. Euler

ↄ430

EULER, Leonhard (1707-1783). *Novae tabulae lunares singulari methodo constructae, quarum ope loca lunae ad quoduis tempus expedite computare licet.* St. Peterburg: Imperial Academy of Sciences, 1772.

8° (218 x 139 mm). Contemporary half calf and marbled boards (spine repaired with a strip of marbled paper, some wear to corners). *Provenance:* "Dr. Hutton's sale" (pencil note on front free endpaper); Stephen Rigaud (signature on front free endpaper dated 1882); Radcliffe Observatory Oxford (ink stamp on front paste down and on title page).

FIRST EDITION of Euler's new lunar tables which were based on his second theory of lunar motion. Norman 736.

Estimate: $800-1,200

ↄ431

EULER, Leonhard (1707-1783). *Théorie complette de la construction et de la manoeuvre des vaisseaux.* St. Petersburg: Imperial Academy of Sciences, 1773.

8° (226 x 164 mm). 11 engraved folding plates. Modern half morocco antique, FULL-MARGINED COPY, UNCUT.

Provenance: Joseph Jerome de Lalande (1732-1807), astronomer involved in most of the major astronomical questions of his day, and friend and fellow-member in the Prussian Academy in Berlin with Euler (presentation inscription from the author on verso of *8 and continuing on recto of *1: "Pour Monsieur de Lalande de la part de [l'Au]teur"], and Lalande's marginal notes throughout, and inserted leaf containing his notes tipped-on to E5).

FIRST EDITION. PRESENTATION COPY TO THE ASTRONOMER J.J. DE LALANDE. The presentation inscription was written while this copy was still in unbound sheets as it continues onto its conjugate leaf (*1.8). Lalande's extensive annotations throughout include extensive mathematical calculations. Lalande's acquaintance with Euler began when he became a fellow member of the Prussian Academy in Berlin in the early 1750s. A FINE ASSOCIATION COPY. Norman 737.

Estimate: $2,000-3,000

ↄ432

EVELYN, John (1620-1796). *Sylva, or a discourse of forest-trees and the propogation of timber in His Majesty's dominians ... to which is annexed Pomona, or an appendix concerning fruit-trees in relation to cider ... also Kalendarium Hortense; or Gard'ners almanac.* London: Jo. Martyn and Ja. Allestry, 1664. 2° (297 x 190 mm). Title-page printed in red and black. (Very minor worming on the lower marin of a few pages, not affecting text). Contemporary blind-ruled and tooled calf (rebacked, endpapers renewed). *Provenance*: Sir Walter Blount (presentation inscription from the author on errata verso: "For Sir Walter Blount/att Mawley/nere Mamble/in Shropshir," and other Blount family members: with two signatures by Elizabeth Teresa Blount, and in the same hand "memento mei," and on the recto "How hard is faith," on the verso of ^{2}L4 is "The epilogue to the Indian Queene," 18 lines of poetry dated January 1663/4; 6 lines of verse dated March 2, 1663/4, 10 lines of prose, a verse couplet and the dog-Latin tag "Qui mockat mockabitur"); Gilbert R. Redgrave (bookplate, signature dated 1906, and his extensive notes); Montgomery Evans II (bookplate); Kenneth Garth Huston (bookplate).

PRESENTATION COPY OF FIRST EDITION. The first official production of the Royal Society. Evelyn wrote in protest against the widespread destruction of forests for the fuelling of furnaces used in the production of iron and glass. The work was well-received and resulted in an increase in reforestation. *Sylva* was long a standard authority. *Kalendarium Hortense* was reprinted separately many times, and was Evelyn's most popular work. Garrison-Morton 145.51; Hunt 296; Wellcome II, p.537; Wing E-3516; Norman 745.

Estimate: $1,000-1,500

5433

FABRICI, Girolamo (ca. 1533-1619). *Pentateuchos Cheirurgicum...* Edited by Johannes Hartmann Beyer (1563-1625). Frankfurt: [Zacharias Palthenius], 1592.

8° (185 x 120 mm). (Light dampstaining, c1-d8 with minor marginal worming, affecting a few letters.) Contemporary limp vellum, remains of two pairs of tawed leather ties.

FIRST EDITION, of this collection of surgical works, edited by a student of Fabrici, Johannnes Hartman Beyer, apparently without his knowledge or consent. The five books of the *Pentateuchos* describe tumors, wounds, ulcers and fistulas, fractures, dislocations and other subjects. NLM/Durling 1416; Wellcome 2120; Norman 748.

Estimate: $800-1,200

5434

FABRICI, Girolamo (ca. 1533-1619). *De formato foetu*. Venice: Francesco Bolzetta, 1600 (Padua: Lorenzo Pasquato, 1604).

Large 2° (432 x 284 mm). Collation: π1 a-b^2 A-E^4 F-I^2 K^4 L-O^2 P^4 Q^2 R-Z^4 Aa^2(1+1). 82 leaves. Engraved title signed "Iacobus Valegius sculp," 11 double-page and 23 full-page engraved illustrations, plates 4 and 10 signed "Ben. W. fec"; printer's woodcut device at end, ornamental woodcut initials and tailpieces. (Some show-through of engravings, printing flaws to plates 14 and 31 from creased paper, one or two tiny wormholes touching image on ca. 5 plates, double plates mounted on guards.) Modern vellum over pasteboard, preserving all deckle edges.

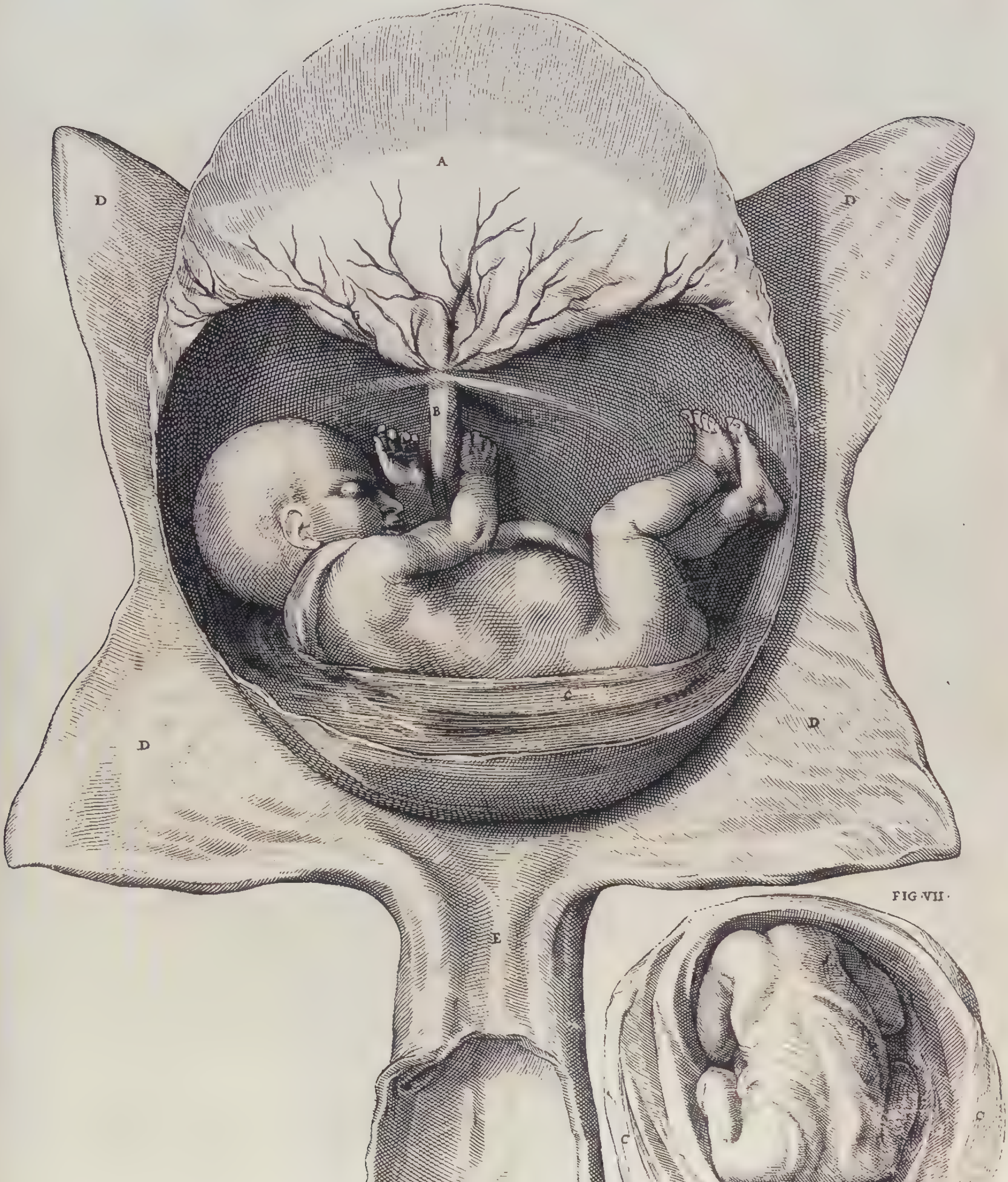
Provenance: Brooklyn NY, Medical Society of the County of Kings and Academy of Medicine of Brooklyn (library stamp, title page verso).

FIRST EDITION. Fabrici's studies in embryology place him among the most important biologists of his time. *De formatione foetu*, the last of his embryological treatises, "illustrates the way in which nature provides for the necessities of the fetus during its intrauterine life. It treats specifically of the umbilical vessels, the urachus, the fetal membranes, fetal waste products, the 'carnea substantia' (placenta), and the uterus. The treatise includes comparative studies of morphological details in dogs, cats, rabbits, mice, guinea pigs, sheep, cattle, goats, roebuck, horses, pigs, birds, sharks, and man... (DSB). This comparative aspect is represented in the 34 engraved plates, which illustrate, in some instances for the first time, various aspects of the anatomy of the uterus and of the fetus in humans and animals. Although some of Fabrici's theories were erroneous, he studied the placenta more thoroughly than any of his precedessors and was the first to record the dissection of embryos.

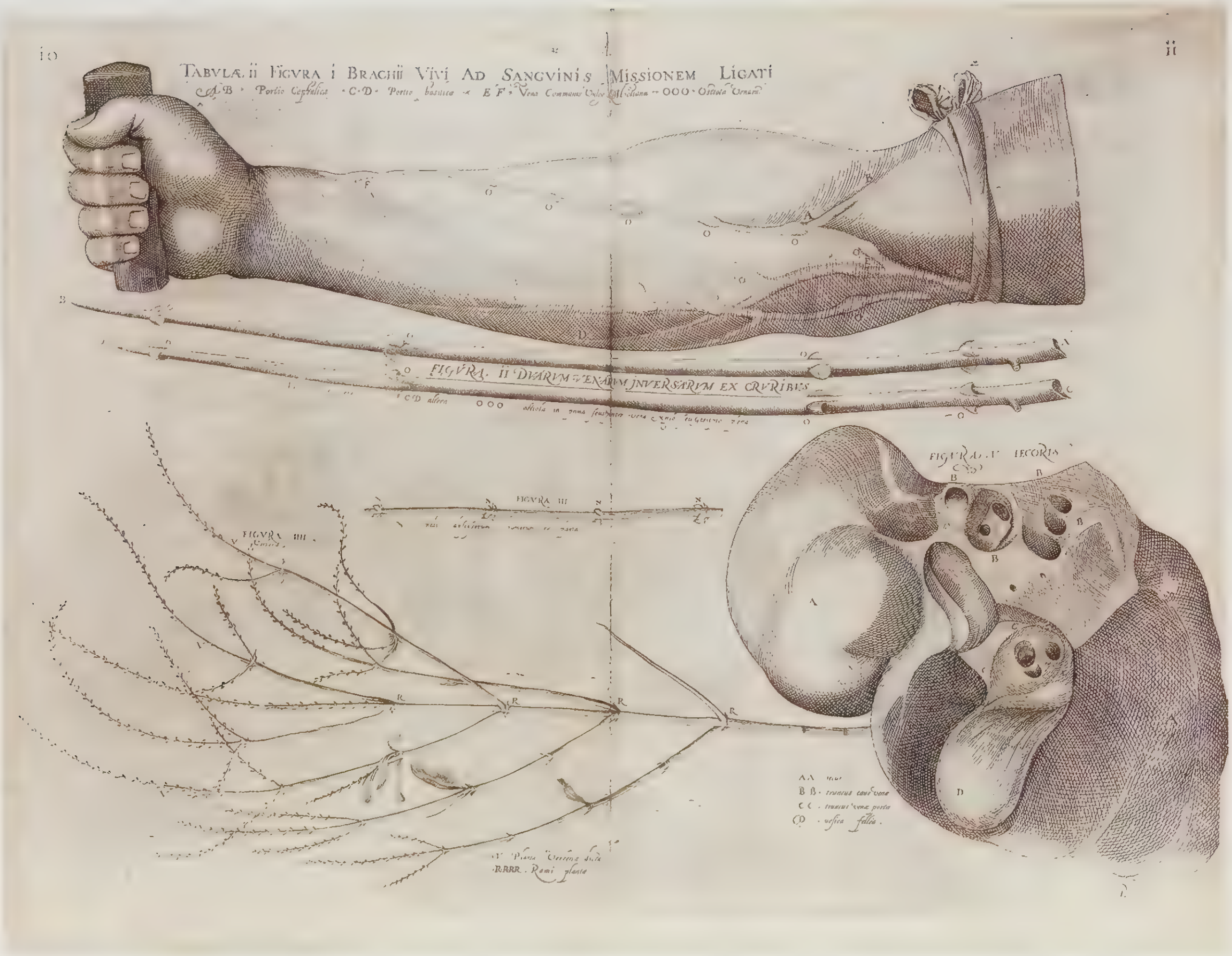
Garrison-Morton 465; NLM/Krivatsy 3827; Wellcome 2119; Norman 751.

Estimate: $8,000-12,000

FIG · VI ·



FIG·VII·


10
11
TABVLÆ II FIGVRA I BRACHII VIVI AD SANGVINIS MISSIONEM LIGATI
A·B Portio Cephalica · C·D Portio basilica · E F Vena Communis vulgo Mediana · OOO Ostiola Venarum
FIGVRA. II DVARVM VENARVM INVERSARVM EX CRVRIBVS
FIGVRA III
FIGVRA IIII
FIGVRA V IECORIS
AA iecur
BB truncus cavæ venæ
CC truncus venæ portæ
D vesica fellea
RRRR Rami plantæ

›435

FABRICI, Girolamo (ca. 1533-1619). *De venarum ostiolis*. Padua: Lorenzo Pasquato, 1603.

Large 2° (406 x 266 mm). Collation: π1 A^4 B-C^2 D^4. 13 leaves. One double-page and 7 full-page engraved illustrations; printer's woodcut device on title, ornamental woodcut initials, head- and tail-pieces. (Slight marginal browning, some show-through of engravings, printing offset to A1r, a few tiny marginal tears discreetly repaired, small mend to upper blank corner of title, A1.4 reinforced at inner margin, small mend to blank area of plate 2, several illustrations cropped to or within plate mark.) Modern crimson morocco.

FIRST EDITION of the first systematic study of the structure, distribution and position of the venous valves. Although the valves of the veins had been observed previously by G.B. Canano and Amato Lusitano, Fabrici studied them anew on the basis of his own observations. Perhaps because he analyzed anatomical structures in terms of their purpose, he interpreted the function of the valves as slowing down the influx of blood in order to distribute it more evenly to the various parts of the body. Although Fabrici's analysis was in part erroneous, *De venarum ostiolis* became his most influential work, in that it inspired his student, William Harvey, to conceptualize the circulation of the blood. Fabrici's plate illustrating the valves of the arm was the model for the plates illustrating Harvey's *De motu cordis* (see lot 502).

Garrison-Morton 757; Grolier *Medicine* 27B; NLM/Krivatsy 3831; Waller 2886; Norman 750.

Estimate: $25,000-35,000

HIERONYMI FABRICI
AB
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PATAVINI.
DE
VENARVM
OSTIOLIS.

PATAVII,
Ex Typographia Laurentij Paſquati.
M. D C. I I I.

›436

FABRICI, Girolamo (ca. 1533-1619). *De locutione et eius instrumentis liber.* Edited by Johannes Leopolita Ursinus (1563-1613). Padua: Lorenzo Pasquato, 1603.

Large 2° (385 x 250 mm). Collation: ∗∗^{4} A-C^4 D^2. 18 leaves. One engraved illustration on D1v, signed "Joa. de Bust sculpt"; woodcut printer's device on title, ornamental woodcut initials and tail-pieces. (Dampstain to lower inner blank margin.) Modern tan half calf, buckram sides.

Second edition. Girolamo Fabrici, also known from the Latin form of his name as Hieronymus Fabricius ab Aquapendente, taught anatomy at the University of Padua, where he had previously studied under Gabriele Falloppio, himself a student of Vesalius. Fabrici published a series of works on aspects of anatomy, including the present work on human speech organs and the physiology of voice production. Edited by Johannes Ursinus, a Polish student of Fabrici's, *De locutione* was first published in 1601 in Venice by J.B. and D. Meietos. Since the first edition was in quarto, the present Padua edition may have been published in order to make the work available in same large folio format as Fabrici's later works, including *De brutorum loquela (Padua, 1603), De venarum ostiolis* (see lot 435), *De formatu foetu* (see lot 434), and *De formation ovi et pulli* (see lot 437). This standard format was specified by the author so that the individual works could be bought singly by students and bound together. After Fabrici's death the treatises were reissued in two collective volumes published in 1625 by Roberto Meglietti and Antonio Meglietti; the individual works are found more frequently in that form than as separate pamphlets retaining their original title pages.

NLM/Krivatsy 3830; Waller 2885; Norman 749.

Estimate: $800-1,200

›437

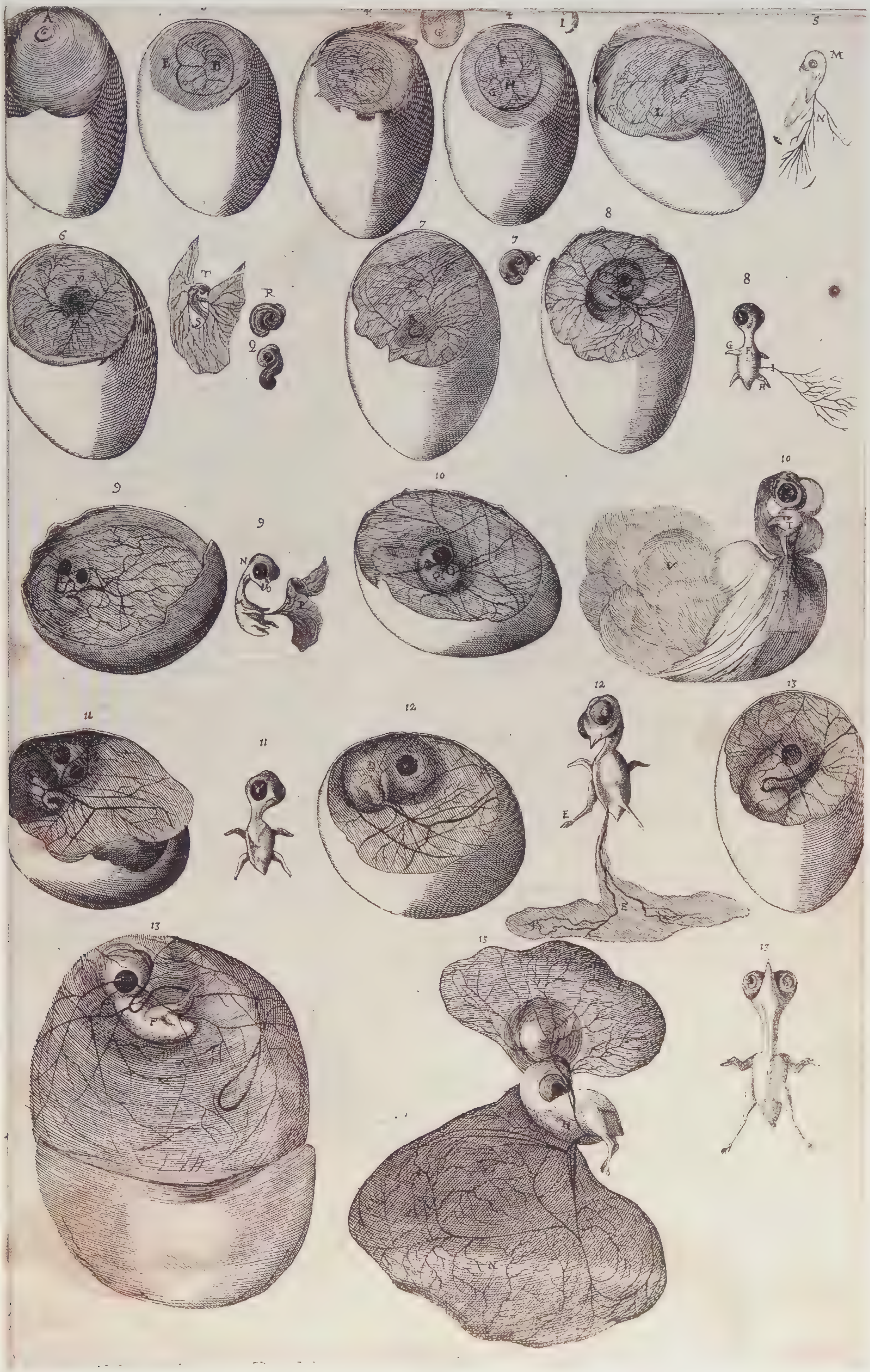
FABRICI, Girolamo (ca. 1533-1619). *De formatione ovi, et pulli tractatus accuratissimus.* Padua: Aloysius Bencius, 1621.

Large 2° (385 x 250 mm). Collation: +^{2} A-H^4 I^2 *K*1 *L*^{4}. 41 leaves. 7 full-page engraved illustrations, printer's woodcut device on title, ornamental woodcut initials and tailpieces. (Some dampstains to lower margins, several illustrations cropped within plate mark, one (H4r) touching image, the final four plates with flaps folded down or cropped touching numbers.) Modern half tan calf, buckram sides.

FIRST EDITION. Although published after Fabrici's death, *De formatione ovi et pulli* is his earliest surviving treatise on embryology. The work is divided into two parts, of which the first deals with the formation of the egg and the second with the generation of the chick within the egg. The plates include the first printed illustrations of the development of the chick.

Garrison-Morton 466; NLM/Krivatsy 3826; Osler 2559; Norman 752.

Estimate: $6,000-8,000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ɔ438

FABRONI, Adamo. *Dell'arte di fare il vino.* Florence: Giuseppe Tofani, 1787.

8° (190 x 135 mm). Engraved vignette on title-page, folding engraved plate at end. (Some scattered foxing.) Modern vellum, uncut.

FIRST EDITION. Fabroni was the first to promote modern ideas about the process of fermentation. His theory of the fermentation, which is discussed in the first part of this work, was influential throughout the 19th century. He maintained that fermentation represented the chemical decomposition of one substance by another, and that the ferment was an albumenoid substance. He also demonstrated that air was not necessary for fermentation to take place. Pasteur considered his work as the beginning of modern ideas on the subject. Garrison-Morton 2467; Simon *Bibliotheca gastronomica* 647; Simon *Bibliotheca vinaria*, p. 45; Norman 746.

Estimate: $1,000-1,500

ɔ439

FAUCHARD, Pierre (1678-1761). *Le chirurgien dentiste, ou traité des dents.* Paris: Jean Mariette, 1728.

Two volumes, 12° (164 x 92 mm). Engraved frontispiece portrait of Fauchard by J.B. Scotin after J. Le Bel in the first volume, 40 engraved plates. (Title patched in first volume, library stamp removed from title in second.) Contemporary French calf, spine gilt (joints and spine ends repaired with olive morocco); morocco folding case.

FIRST EDITION OF FAUCHARD'S PIONEERING WORK IN THE FIELD OF MODERN DENTISTRY. Fauchard's *Le chirurgien dentiste* was the first work on the subject to synthesize the theoretical and practical knowledge of dentistry available to him at the time. "Before Fauchard's time the profession of dentistry was truly a 'mystery,' for its practitioners had steadfastly refrained from publishing details of their technique and equipment. Fauchard summarized in his pages with numerous illustrations all that was best in the practice of his day and disclosed what had been hitherto jealously guarded secrets. *Le Chirurgien Dentiste* ... is in fact the first scientific work on its subject, and modern dentistry begins with its publication" (PMM). *En Français dans le texte* 142; Garrison-Morton 3671 ("one of the greatest books in the history of the subject"); Grolier *Medicine* 40; NLM/Blake, p.144; PMM 186; Waller 10620; Weinberger, *Dentistry* I, pp. 297-312; Wellcome III, p.12; Norman 768.

(2)

Estimate: $12,000-18,000

ɔ440

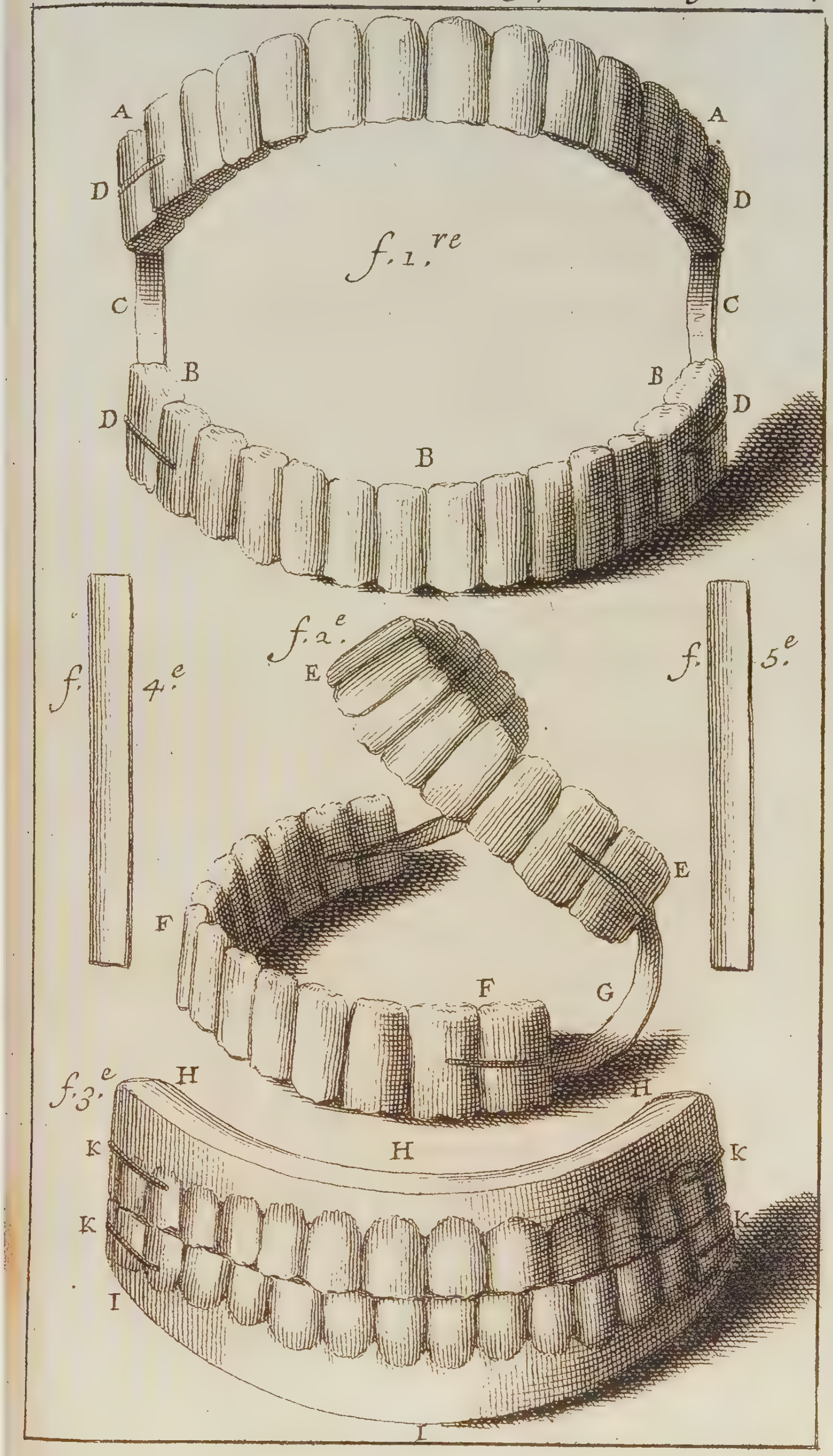
FAUJAS DE SAINT-FOND, Barthélemy de (1743-1819). *Description des expériences de la machine aérostatique de MM. Montgolfier et de celles auxquelles cette découverte à donné lieu.* Paris: [Chardon for] Cuchet, 1783.

Volume I only (of 2), 8° (195 x 125 mm.) 9 engraved plates including frontispiece, most by N. Launay after Charles de Lorimer, folding table. Contemporary quarter calf, and marbled boards, spine gilt with gilt lettered red leather label.

Provenance: Madame la Comtesse d'Anveran? (presentation inscription from the author on title: "É Madame la Comtesse d'Anveran[?] de la part de l'auteur" [cropped]).

FIRST EDITION, FIRST ISSUE. PRESENTATION COPY OF "THE FIRST SERIOUS TREATISE ON AEROSTATION AS A PRACTICAL POSSIBILITY" (PMM). Dibner *Heralds of Science* 179; PMM 229; Norman 770.

Estimate: $800-1,200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441

FAUJAS DE SAINT-FOND, Barthélemy de (1743-1819). *Description des expériences de la machine aérostatique de MM. de Montgolfier et de celles auxquelles cette découverte a donné lieu. –Première suite de la description…* [Vol. 2]. Paris: [Chardon for] Cuchet, 1783-84.

2 volumes, 8° (190 x 122 mm). 14 engraved plates including 2 frontispieces, most by N. Launay after Charles de Lorimer, folding table. Modern quarter sheep antique.

FIRST EDITION, second issue of the first volume, with the four-page supplement at end. "THE FIRST SERIOUS TREATISE ON AEROSTATION AS A PRACTICAL POSSIBILITY" (PMM), a detailed historical and technical account of the first ballon flights carried out in 1783 by the brothers Etienne and Joseph de Montgolfier, written by one of their principal sponsors. Dibner *Heralds of Science* 179; PMM 229; Norman 769.

(2)

Estimate: $1,200-1,800

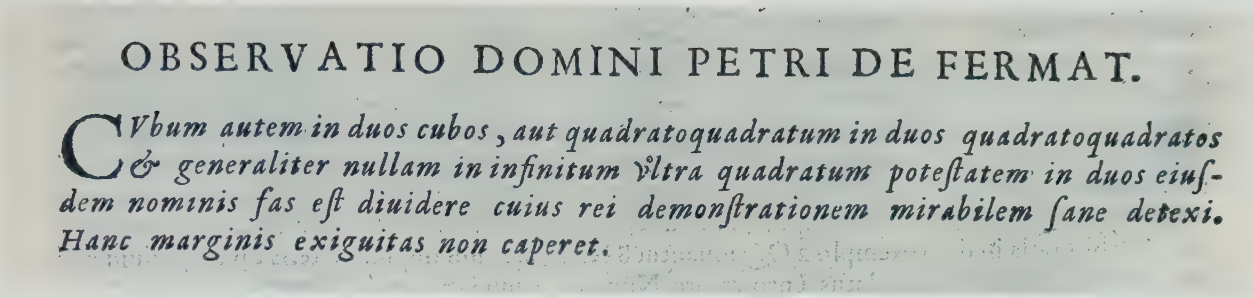
442

[FERMAT, Pierre de (1601-1665)]. DIOPHANTUS of Alexandria (fl. A.D. 250). *Arithmeticorum libri sex, et de numeris multangulis liber unus.* Latin translation by Guilelmus Xylander (Wilhelm Holtzmann, 1532-1576). Edited by Claude Bachet de Méziriac (1581-1638). Commentary by Pierre de Fermat. Toulouse: Bernard Bosc, 1670.

2° (338 x 230 mm). Text in Greek and Latin in double columns, commentary in Latin, single column. A few woodcut text diagrams, engraved title vignette by Rabault, 2 engraved head-pieces, one engraved initial, woodcut initials and tailpieces. (Marginal dampstain to sheet X1.4, sheets X2.3 and Nn2.3 misbound in reverse order, marginal paper flaw to Hh4.) Contemporary vellum over pasteboard (covers soiled). *Provenance*: Cashel Library (19th-century inscription with shelfmark).

FIRST EDITION OF FERMAT'S THEOREMS RELATING TO NUMBER THEORY. A Toulouse *parlementaire* with a passion for numbers, Fermat was one of the most brilliant mathematicians of his or any time. He made important discoveries in analytic geometry and algebra, and was the first European to make extensive contributions to the theory of numbers, which he restricted in principle to the domain of integers, establishing it as an independent branch of mathematics. Since most of his work in the realm of number theory remained unpublished in his lifetime and of limited circulation later, "it was neither understood nor appreciated until Euler revived it and initiated the line of continuous research that culminated in the work of Gauss and Kummer in the early nineteenth century. Indeed, many of Fermat's results are basic elements of number theory today… The importance of Fermat's work in the theory of numbers lay less in any contribution to contemporary developments in mathematics than in their stimulative effect on later generations" (DSB). His work paved the way notably for the development of the differential calculus.

Fermat showed not the slightest interest in publishing his work, which remained confined to his correspondence, personal notes, and to marginal jottings in a copy of the 1621 *editio princeps*, edited by Claude Bachet, of Diophantus' *Arithmetica*. Fermat's marginalia included not only arguments against some of Bachet's conclusions, but also new problems inspired by Diophantus. After his death, Fermat's eldest son Clément-Samuel published his father's marginalia in this new edition. Most famous of the 48 observations by Fermat included here is the tantalizing note that appears on fol. H3r, stating the still unproved theorem "regarding the impossibility of finding a positive integer $n > 2$ for which the equation $x^n + y^n = z^n$ holds true for the positive integers x, y, and z" (Norman). Fermat noted that he had discovered a "truly marvelous demonstration" of this proposition, but that the margin was too narrow to transcribe it. The proposition, so simple in form, became known as the single most difficult problem in mathematics, and for over 300 years no mathematician succeeded either in disproving it or in finding Fermat's mysterious proof. In 1995 Andrew Wiles, professor of mathematics at Princeton, who had been obsessed with Fermat's proposition since the age of 10, completed a 130-page proof of the theorem (first presented in 1993, with a flaw that required revision),



OBSERVATIO DOMINI PETRI DE FERMAT.

CVbum autem in duos cubos, aut quadratoquadratum in duos quadratoquadratos & generaliter nullam in infinitum vltra quadratum poteſtatem in duos eiuſdem nominis fas eſt diuidere cuius rei demonſtrationem mirabilem ſane detexi. Hanc marginis exiguitas non caperet.

442 (detail)

using the most advanced techniques of modern mathematics. His achievement was described by fellow mathematicians as the mathematical equivalent "of splitting the atom or finding the structure of DNA" (Singh, p. 279). Nonetheless, Wiles had had to resort to sophisticated 20th-century techniques not available to Fermat. The exact form of Fermat's proof, if indeed he had a genuine one, thus remains one of the great unsolved puzzles of mathematics. Simon Singh, *Fermat's Enigma* (New York, 1997); Smith, p. 348; Norman 777.

Estimate: $2,000-3,000

›443

FERMAT, Pierre de (1601-1665). *Varia opera mathematica*. Edited by Clément-Samuel de Fermat. Toulouse: Jean Pech, 1679.

2° (337 x 215 mm). Woodcut ornament on title, 2 engraved head-pieces, 5 engraved plates; Dd2 blank. (Occasional light foxing, some browning, marginal dampstain to last few leaves). Contemporary mottled sheep, spine gilt, red morocco lettering-piece (rebacked preserving original backstrip, corners restored). *Provenance*: 19th-century shelfmarks on front free endpaper.

FIRST EDITION of the majority of Fermat's mathematical work, published posthumously from his notes and collected correspondence by his eldest son. The edition contains his important researches in analytic geometry, the methods of maxima and minima, and the theory of numbers and probability, and includes his correspondence with contemporary mathematicians including Mersenne, Robertval, Pascal and Gassendi. Concurrently with Descartes, but working independently, Fermat set forth a system of analytic geometry, in which algebraic equations are used to demonstrate the theorems of classic Greek geometry. He was the first to represent a curve by an equation defining its characteristic properties. Fermat often merely recorded the results of his calculations, omitting the meticulous transcription of the classical synthetic proof. "In large part Fermat's style of exposition characterized the unfinished nature of his papers, most of them brief essays or letters to friends. He never wrote for publication. Indeed, adamantly refusing to edit his work or to publish it under his own name, Fermat thwarted several efforts by others to make his results available in print. Showing little interest in completed work, he freely sent papers to friends without keeping copies for himself... Whatever the reason, anonymity and refusal to publish robbed him of recognition for many striking achievements..." (DSB). Fermat's work remained all but unknown until the 19th century, with the revival of interest in number theory.

This copy contains Horblit's 2nd state of the title (with woodcut ornament), and his 1st state of leaves ã2r and ẽ2r (with engraved vignettes). In reality there seems to be no priority between the two states and most copies have a mixture of the two. Some copies contain an engraved portrait of the author, not present here or in the Horblit or Honeyman copies. RARE. Dibner, *Heralds of Science* 108; Grolier/Horblit 30; Norman 778.

Estimate: $8,000-12,000

›444

FLOYER, John (1649-1734). *Medicina Gerocomica: Or, the Galenic Art of preserving Old Men's Health's.* London: for J. Isted, 1724.

8° (179 x 110 mm). (Some minor pale spotting, a few margins weak.) 19th-century sheep-backed marbled boards (joints slightly rubbed). *Provenance*: Sam Dyer Wise (signature on title-page dated 1873).

FIRST EDITION OF "THE FIRST ENGLISH BOOK DEVOTED TO GERIATRICS" (Garrison-Morton 1595). Wellcome III, p.35; Norman 809.

[*With:*]

FLOYER, John. *The ancient* ΨΥΓΡΟΛΟΥΣΙΑ *revived: or, an Essay to prove Cold Bathing both Safe and Useful.* London: for Samuel Smith and Benjamin Walford, 1702.

8° (176 x 107 mm). Contemporary English panelled calf (rebacked, worn at edges). FIRST EDITION of Floyer's history of cold bathing. Garrison-Morton 2029; *Heirs of Hippocrates* 669; Osler 2616; Wellcome III, p.34; Norman 808.

(2)

Estimate: $1,000-1,500

›445

FONTANA, Felice (1730-1805). *De moti dell' iride.* Lucca: Jacopo Giusti, 1765.

8° (219 x 136 mm). (Some very minor light browning.) Contemporary marbled boards, uncut (rebacked in vellum). *Provenance*: Biblioteca Caproni (bookplate).

FIRST EDITION of Fontana's investigation of how and why the iris contracts. Garrison-Morton 1485; Wellcome III, p.37; Norman 813.

Estimate: $600-800

›446

FOURCROY, Antoine François de (1755-1809). *Leçons élémentaires d'histoire naturelle et de chimie.* Paris: Rue et Hòtel Serpente, 1782. 2 volumes, 8° (215 x 137 mm., uncut) engraved folding plate and 4 folding tables. Contemporary marbled boards (some wear to spines). FIRST EDITION, of Fourcroy's first book. Duveen p. 224; Partington III, p. 537; Norman 821 — FOURCROY. *Mémoires et observations de chimie.* Paris: Cuchet, 1784. 8° (196 x 121 mm). 3 engraved plates (light browning and staining.) 19th-century marbled boards (rebacked). FIRST EDITION. A collection of memoirs read before the Académie des Sciences between 1777 and 1784. Duveen p. 225; Ferguson I, p. 187; Partington III, p. 537; Wellcome III, p.47; Norman 822.

(3)

Estimate: $800-1,200

›447

FOURCROY, Antoine-François de (1755-1809). *Systéme des connaissances chimiques, et de leurs applications aux phénomènes de la nature et de l'art.* Paris: Baudouin, 1801-1802.

11 volumes (including *Table alphabétique et analytique des matières*). 8° (233 x 153 mm) (occational light dampstaining.) Contemporary plain buff wrappers, uncut (light wear to spines).

FIRST EDITION. "Fourcroy's extraordinary activity and energy were not exhausted by his multitudinous researches and his labours connected with organisation of education from the first grade to the highest. He was besides professor of chemistry at the Jardin des Plantes, the École Polytechnique, and at the Faculty of Medicine ... [his lectures] are practically contained in his *Système des connaissances chymiques* ... the best account of the state of the science at the time..." (Ferguson). Duveen p. 226 (4° version); Ferguson I, p. 288; Partington III, p. 538; Wellcome III, p.48; Norman 823.

(11)

Estimate: $800-1,200

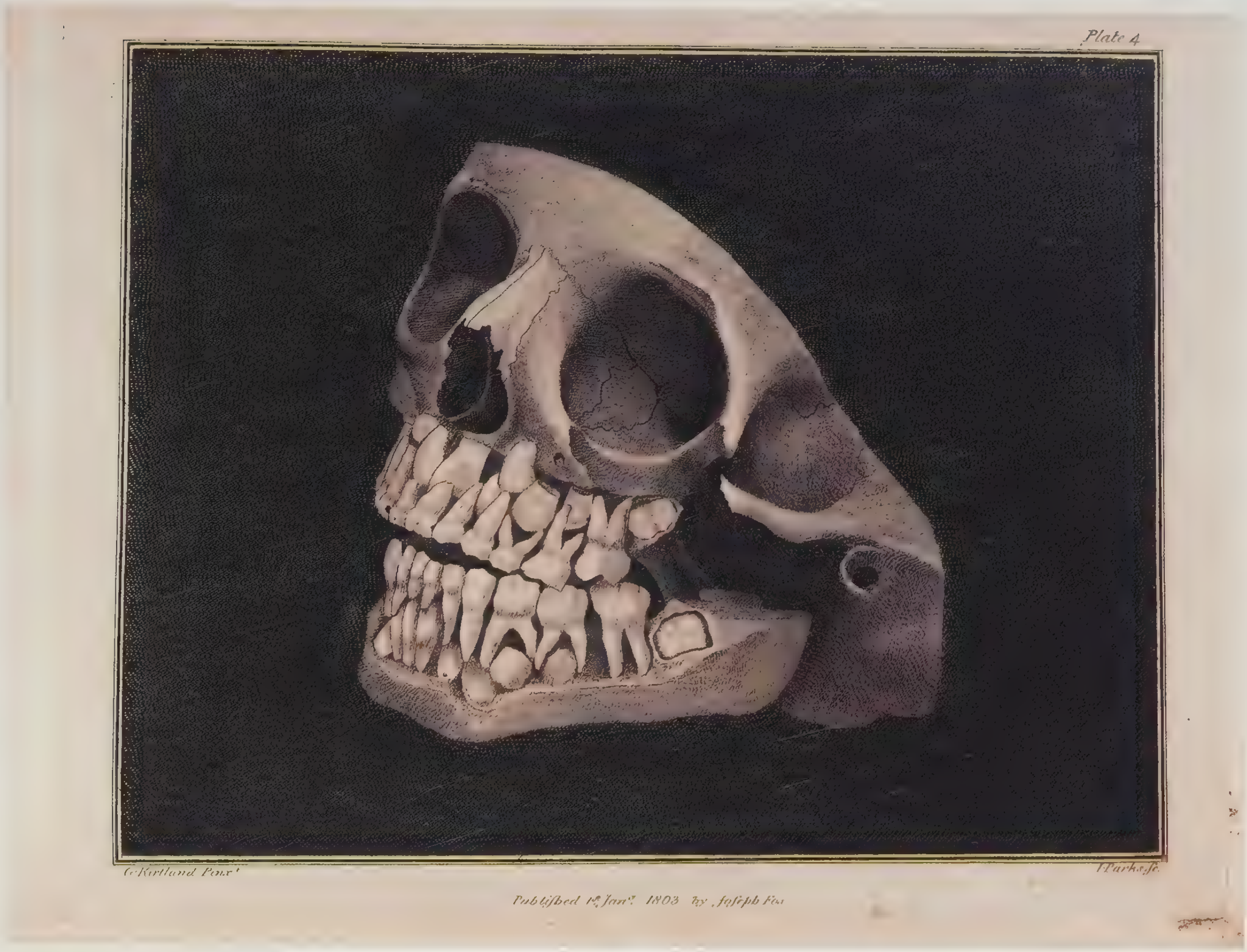


Plate 4
G. Kirtland Pinx.t
I. Parks sc.
Publiſhed 1st Jan.y 1803 by Joſeph Fox

›448

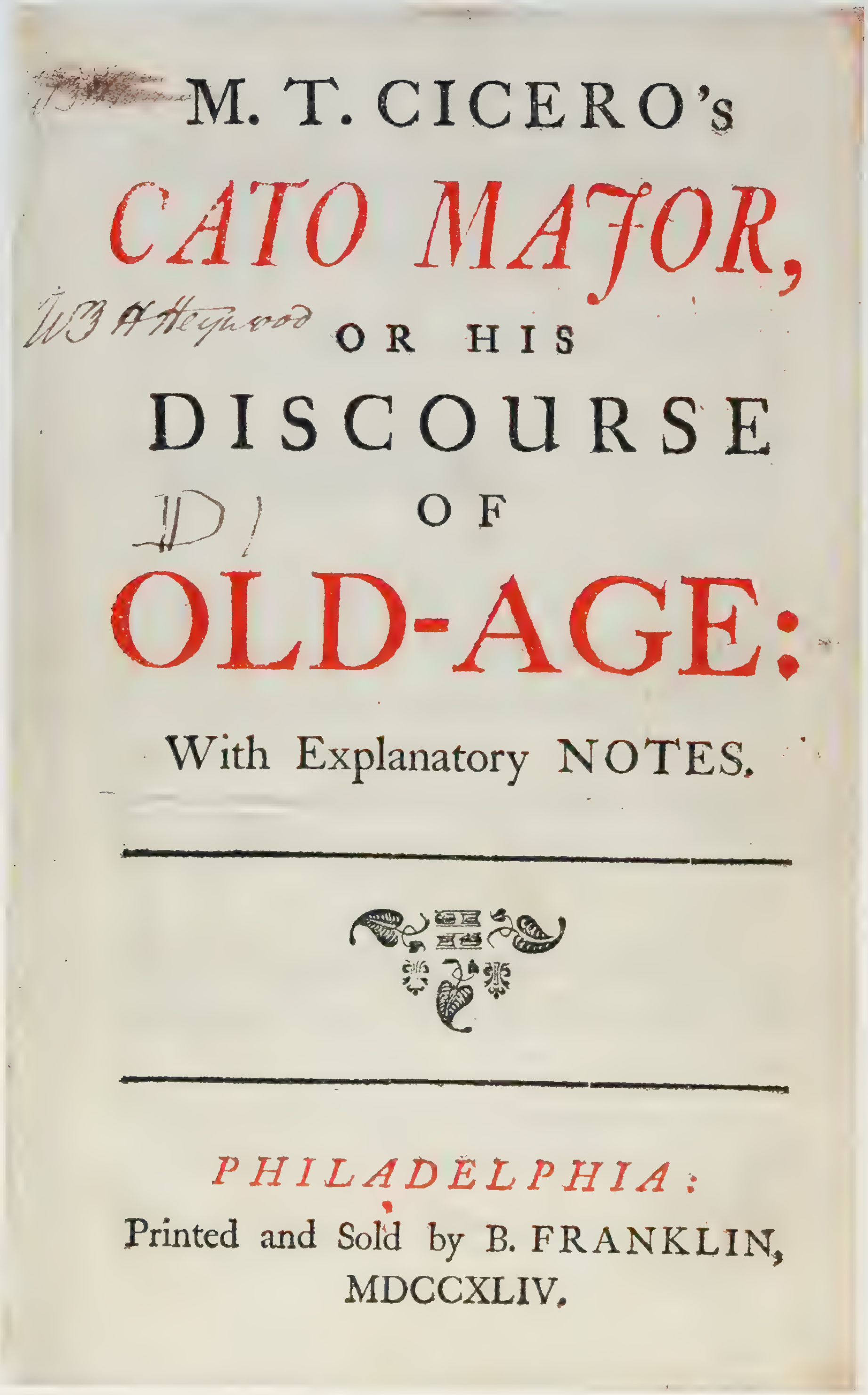
FOX, Joseph (1776-1816). *The natural history of the human teeth.* London: for Thomas Cox, 1803.

4° (273 x 215 mm). 13 engraved plates by I. Parks after G. Kirtland, Franklin, and Parks. (Some minor scattered pale spotting and offsetting.) Modern calf antique.

FIRST EDITION OF THE FIRST WORK ON ORTHODONTICS. "Fox's classic treatise on the teeth is the first to include explicit directions for correcting dental irregularities" (Garrison-Morton). Garrison-Morton 3679; Weinberger, *Dentistry* I, pp. 340-44; Weinberger, *Orthodontics* I, pp. 170-77; Wellcome III, p.50; Norman 825.

Estimate: $1,000-1,500

END OF MORNING SESSION



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(LOTS 449-673)

○449

[FRANKLIN, Benjamin, *printer* (1706-1790)]. CICERO, Marcus Tullius (106-43 B.C.). *M.T. Cicero's Cato Major, or his Discourse of Old-Age: with explanatory notes.* Translated by James Logan (1674-1751). Philadelphia: printed and sold by Benjamin Franklin, 1744.

4° (193 x 124 mm). Title-page printed in red and black. (Gutter margin of title-page reinforced, tiny rusthole in T4.) Contemporary calf (rebacked, corners repaired); quarter morocco slipcase. *Provenance*: "S.B. 1790" (inscription twice on front free endpaper); John Eden (signed twice on front free endpaper); William H. Heywood, 1790 (ownership inscription on front free endpaper and signature on title-page).

FIRST EDITION, FIRST STATE (with "ony" on page 27), printed on Genoese paper (three circles watermark). Generally recognized as Franklin's typographic masterpiece, the *Cato Major* was translated by his friend, the American scientist, statesman and bibliophile, James Logan (1674-1751). It was at the insistance of Franklin that Logan agreed to publish the translation which he had prepared some ten years earlier. In the Printer's note to the reader Franklin writes of Logan's translation: "I believed it to be in itself equal at least, if not far preferable to any other Translation of the same Piece extant in our Language, besides the Advantage it has of so many valuable Notes, which at the same time they clear up the Text, are highly instructive and entertaining; I resolved to give it an Impression." With the exception of the almanacs, *Cato Major* is the best known work from Franklin's press. FINE COPY. Church 949; Evans 5361; Miller 347; Sabin 13040; Norman 484.

Estimate: $4,000-6,000

ɔ450

FRANKLIN, Benjamin (1706-1790). *Experiments and Observations on Electricity, made at Philadelphia in America.* London: Printed and sold by E. Cave, 1751.

4° (246 x 183 mm). Engraved folding plate by Thomas Jeffreys. (Some spotting and browning, a few pale marginal dampstains.) Stabbed, as issued, uncut; folding morocco case.

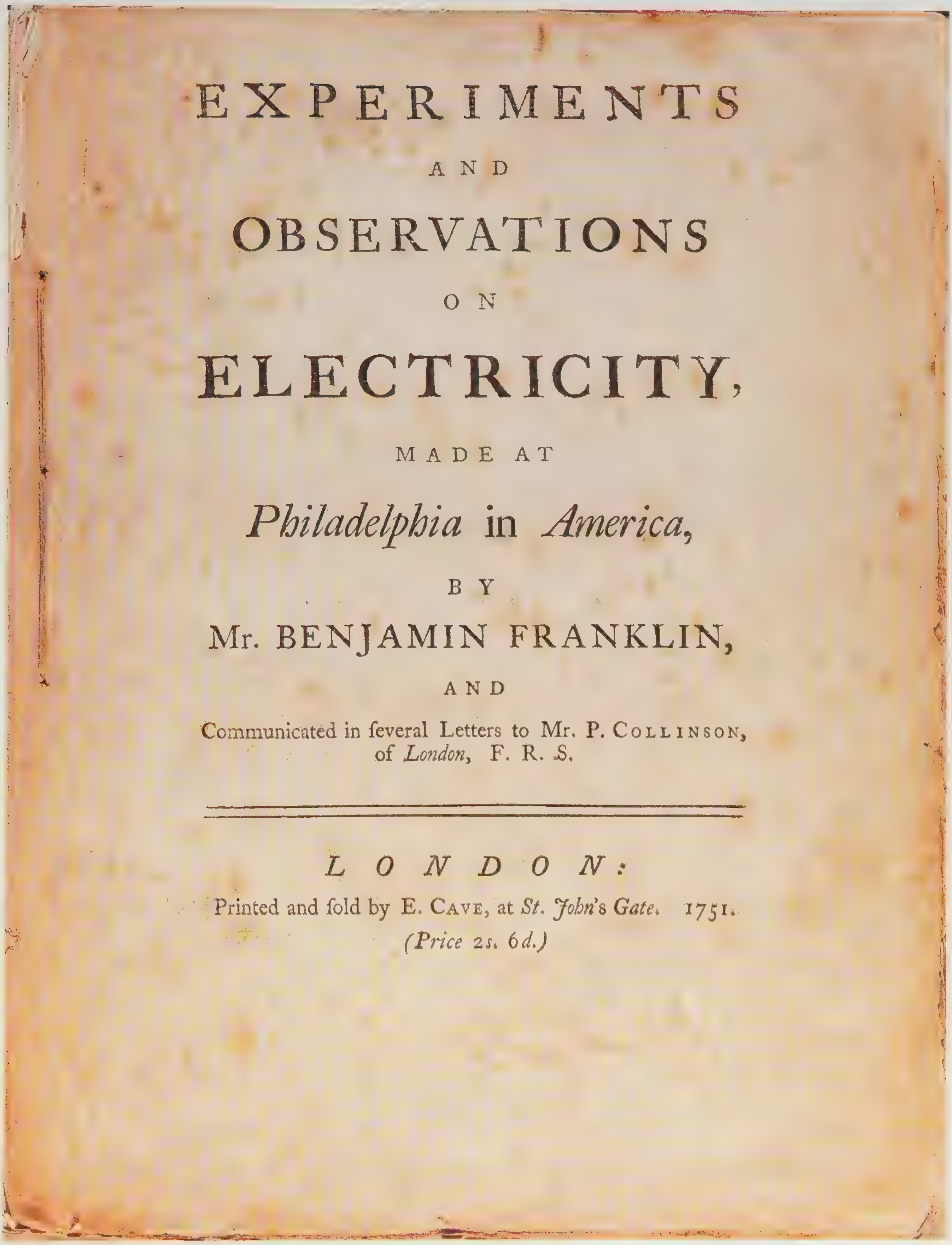
FIRST EDITION OF THE FIRST PART OF FRANKLIN'S MOST IMPORTANT SCIENTIFIC PUBLICATION. The first part of Franklin's report on his electrical experiments performed during the latter half of the 1740s using the Leiden jar. Published in a series of letters addressed to Peter Collinson, a London merchant and naturalist, the results of his experiments provided successful analysis of electrical properties. His findings resulted in his proposition of the "single fluid" theory of electricity, which provided an explanation of induced charges. This work includes Franklin's account of his famous kite and key experiment, establishing that lightning is really an electrical phenomenon. "The most dramatic result of Franklin's researches was the proof that lightning is really an electrical phenomenon. Others had made such a suggestion before him—even Newton himself—but it was he who provided the experimental proof. In 1752 he flew a kite in a thunderstorm and attached a key to its string. From this he collected electric charges in a Leiden jar and showed that atmosphereic and frictional or machine-made electricity are the same ... *Experiments and Observations* remains the most important scientific book of eighteenth-century America" (PMM). A brief second part, consisting of 12 leaves, was published in 1753 by Cave; this was followed by the third and final part in 1754 (see below). Dibner *Heralds* 57; Grolier/Horblit 31a; PMM 199; Norman 830.

[*With*:]

FRANKLIN, Benjamin. *New Experiments and Observations on Electricity. Made at Philadelphia in America.* Part III. London: Printed and sold by D. Henry, and R. Cave, 1754. 4° (252 x 187 mm). Woodcut illustration in text. Stabbed, as issued, uncut. FIRST EDITION of the third part of the work, in which Franklin developed more fully his explanation of induced charges. Wellcome III, p.62.

(2)

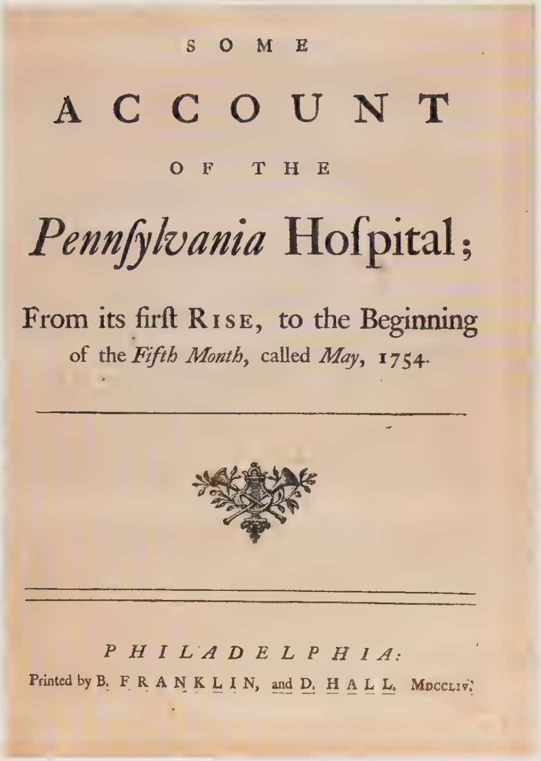
Estimate: $8,000-12,000



EXPERIMENTS
AND
OBSERVATIONS
ON
ELECTRICITY,

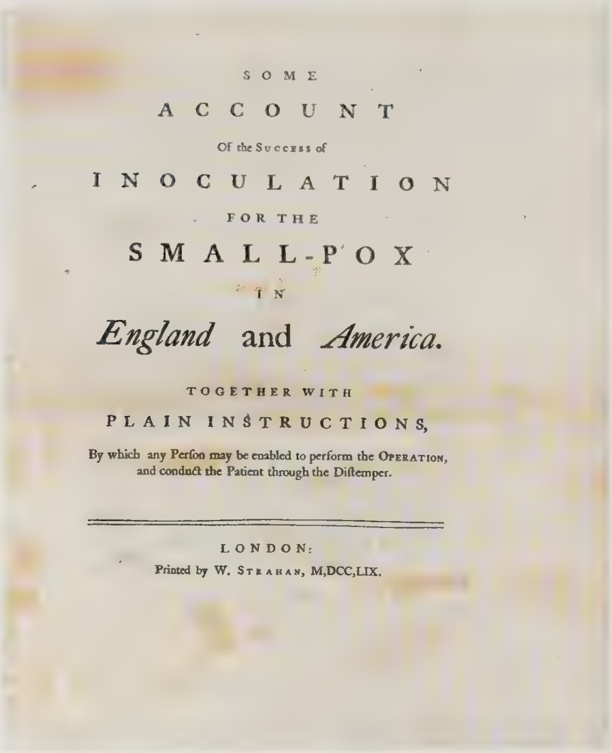
MADE AT
Philadelphia in *America*,
BY
Mr. BENJAMIN FRANKLIN,
AND
Communicated in ſeveral Letters to Mr. P. COLLINSON,
of *London*, F. R. S.

LONDON:
Printed and ſold by E. CAVE, at *St. John's Gate*. 1751.
(Price 2s. 6d.)


SOME
ACCOUNT
OF THE
Pennſylvania Hoſpital;
From its firſt Rise, to the Beginning
of the *Fifth Month*, called *May*, 1754.

PHILADELPHIA:
Printed by B. FRANKLIN, and D. HALL. MDCCLIV.

451


SOME
ACCOUNT
Of the Success of
INOCULATION
FOR THE
SMALL-POX
IN
England and *America.*
TOGETHER WITH
PLAIN INSTRUCTIONS,
By which any Perſon may be enabled to perform the Operation,
and conduct the Patient through the Diſtemper.

LONDON:
Printed by W. Strahan, M,DCC,LIX.

452

ɔ451

[FRANKLIN, Benjamin]. *Some Account of the Pennsylvania Hospital; From its first Rise, to the Beginning of the Fifth Month, called May, 1754* — [Bound with:] [RHOADS, Samuel, et al.] *Continuation of the Account of the Philadelphia Hospital; From the First of May 1754, to the Fifth of May, 1761. With an Alphabetical List of the Contributors....* Both Philadelphia: B. Franklin and D. Hall, 1754 & 1761. 2 parts in one, 4° (232 x 187mm). Collation: Part 1: A-E^4(-E4); Part 2: F-K^4. (Scattered foxing, the *Account* deliberately bound without E4, containing a preliminary list of contributors up to 1754, which is superseded by the fuller, updated list at the end of the *Continuation*, pp.71-77). Later stiff wrappers, stab-holes visible (rebacked); half maroon morocco folding case.

FIRST EDITIONS, the first title one of 1500 copies, the *Continuation* one of only 500 copies printed. The Pennsylvania Hospital was the first permanent hospital established in the United States; its founders included Franklin (who served as its first Secretary and later chairman), members of the Penn family and Lt. Governor James Hamilton, and it was incorporated by an act of the legislature in January 1750 (the text is printed in the *Account*). By 1761 additional subscriptions were required and, to explain and justify the hospital's expenditures to date, Franklin was requested to give a detailed *Account* of the institution's first years. The *Continuation* furnished similar information, with a lengthy list of all the contributors and bequests. Austin 794 & 795; Evans 7197 & 8972; Guerra a272 & a324; Miller 587 & 764: ("Both...were designed to help raise additional moneys for the Pennsylvania Hospital...the *Continuation* was designed in signatures, pagination and paper size to serve as sequel and be bound with it"); Streeter sale 956; Norman 831.

[*With*:] [COATES, SAMUEL]. *An Account of the Rise, Progress, & Present State, of Pennsylvania Hospital.* Philadelphia: R. Carr, 1801. 8° (171 x 106 mm). 8 pages, folded sheets, unbound and uncut. Tipped into modern paper wrappers with a printed document signed by Coates, Philadelphia, 29 October 1800, 1 page, 4to, admitting a patient to the hospital.

Estimate: $3,000-4,000

○452

[FRANKLIN, Benjamin, (1706-1790) and William HEBERDEN (1710-1801)]. *Some Account of the Success of Inoculation for the Small-Pox in England and America. Together With Plain Instructions by which any Person may perform the Operation, and conduct the Patient through the Distemper.* London: W Strahan, 1759.

4° (255 x 211mm). General title as above, separate title for the appended *Plain Instructions* by Heberden, which adds in the imprint "Printed at the Expence of the Author, to be given away in America" (first title spotted and with clean tear to fore-margin, very minor small stain to extreme gutter margins). Modern light blue paper wrappers; quarter maroon morocco folding case. *Provenance*: Library Company of Philadelphia (bookplate marked "Duplicate / E.W." [Edwin Wolf]).

FIRST EDITION of Franklin's account of the new procedure of inoculation as observed by him at first hand during the 1753-1754 Boston epidemic, supplemented by a brief but thorough explanation of the inoculation process and course of infection contributed by the eminent English physician Heberden, who was the first to distinguish varicella (chicken-pox) from the potentially deadly smallpox and the first to describe the symptoms of angina pectoris. "Believing that its influence would be greater if its eminent author's name was revealed, Franklin sent 1,500 copies of the eight-page pamphlet to David Hall in Philadelphia with instructions that it be given away gratis; he accompanied it with a four-page tract...disclosing Heberden's name" (E. Wright, *Franklin of Philadelphia*, p.127). VERY RARE. Garrison-Morton 5419; Sabin 25589; Norman 833 ("...Franklin had been actively opposed to smallpox inoculation...but the tragic loss of his young son to the disease in 1736 transformed him into one of its strongest advocates").

Estimate: $5,000-7,000

○453

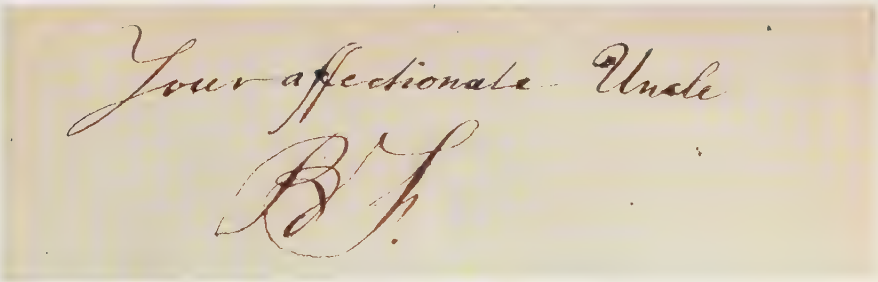
FRANKLIN, Benjamin (1706-1790). *Philosophical and miscellaneous papers*. London: for C. Dilly, 1787.

8° (221 x 135 mm). 4 folding engraved plates, including a chart of the Gulf Stream (some minor offsetting). Modern calf-backed marbled boards. *Provenance*: member of the Franklin family (presentation inscription from Franklin on the advertisement leaf: "Your affectionate Uncle / B.F.").

FIRST EDITION. PRESENTATION COPY TO HIS NEPHEW OR NIECE. A companion volume to the collected edition of *Experiments and observations in electricity* (1769) and Franklin's *Political, miscellaneous and philosophical pieces* (1779).

The recipient of this volume was most likely Franklin's grand-nephew, Jonathan Williams (1750-1815), merchant and soldier who was the son of Jonathan Williams and Grace Harris Williams, daughter of Benjamin Franklin's sister, Anne. Williams along with his brother were sent to London in 1770 to complete their training and make contacts under Franklin's tutelage. Franklin was impressed by his diligence and the two remained close over the years. Williams lived abroad until his return to America with Franklin in 1785. In 1796 he became an associate judge in the court of common pleas, and gained a reputation as a scientist. He worked with his uncle on some of his later experiments, and published in 1799 a treatise entitled *Thermometrical Navigation*. He also contributed to the *Transactions* of the American Philosophical Society, where he served at various times secretary, councillor, and vice-president. Howes B-328; Sabin 25562; Norman 834.

Estimate: $3,000-4,000



Your affectionate Uncle
B.F.

453 (detail)

ɔ454

GALILEI, Galileo (1564-1642). *Sidereus nuncius magna, longeque admirabilia spectacula pandens.* Venice: Tommaso Baglioni, 1610.

4° (218 x 163 mm). Baglioni's woodcut device on title, woodcut headpiece and initial, 5 half-page etchings in the text showing the lunar surface and phases, 3 woodcut text diagrams, 3 woodcut star maps, one covering 1½ pages, and 65 one-line typographical diagrams showing the varying positions of Jupiter and its moons. This copy with the pasted cancel slip, correcting "Cosmica" to "Medicea" in the heading on B1r. (Occasional very faint marginal dampstaining, quire F slightly foxed.) Contemporary limp vellum, titles of both works ink-lettered on spine (a few worm-tracks to lower cover).

FIRST EDITION OF THE FOUNDATION WORK OF MODERN ASTRONOMY, CONTAINING THE FIRST ACCOUNT OF ASTRONOMICAL DISCOVERIES MADE WITH THE TELESCOPE. Having learned from Paolo Sarpi in 1609 of the invention by Hans Lipperhey of a device for making distant objects appear closer, Galileo set out to construct his own instrument. Within a few months he had improved his first nine-power instrument to one of about thirty-power, the practicable limit for a telescope of that type (with plano-convex objective and plano-concave eyepiece). He first turned his telescope to the heavens in early January 1610 "...with startling results. Not only was the moon revealed to be mountainous and the Milky Way to be a congeries of separate stars, contrary to Aristotelian principles, but a host of new fixed stars and four satellites of Jupiter [which he named the Medicea Sidera in honor of Cosimo II de' Medici] were promptly discovered. Working with great haste but impressive accuracy, Galileo recited these discoveries in the *Sidereus nuncius*, published at Venice early in March 1610" (DSB). Galileo's discoveries, which won him instant fame, did not prove that Copernicus was correct, only that the Aristotelian-Ptolemaic view of the universe was utterly false. Nowhere in the *Sidereus nuncius* did Galileo explicitly express his private views in support of heliocentrism. Nevertheless, the work was immediately the object of virulent attacks, which questioned the reality of rather than the implications of his observations. "The reliability of the telescope, rather than the philosophical or theological plausibility of the Copernican system, was the main target of Galileo's adversaries and the subject of his replies in the period immediately following the publication of the *Sidereus nuncius*" (M. Biagioli, *Galileo Courtier*, Chicago 1993, p. 95). Galileo's defense against these attacks was to legitimize his discoveries by linking them to his Medici patrons, not only through the dedication of his work to Cosimo II and his naming of the "Medicean stars," but more pointedly through his use of the Medicean diplomatic network to distribute telescopes and copies of his work to the European princes and cultural elite. The debate on Copernicanism was, however, reignited by this epochal work, the opening salvo of the assault of modern astronomy on the medieval view of the cosmos.

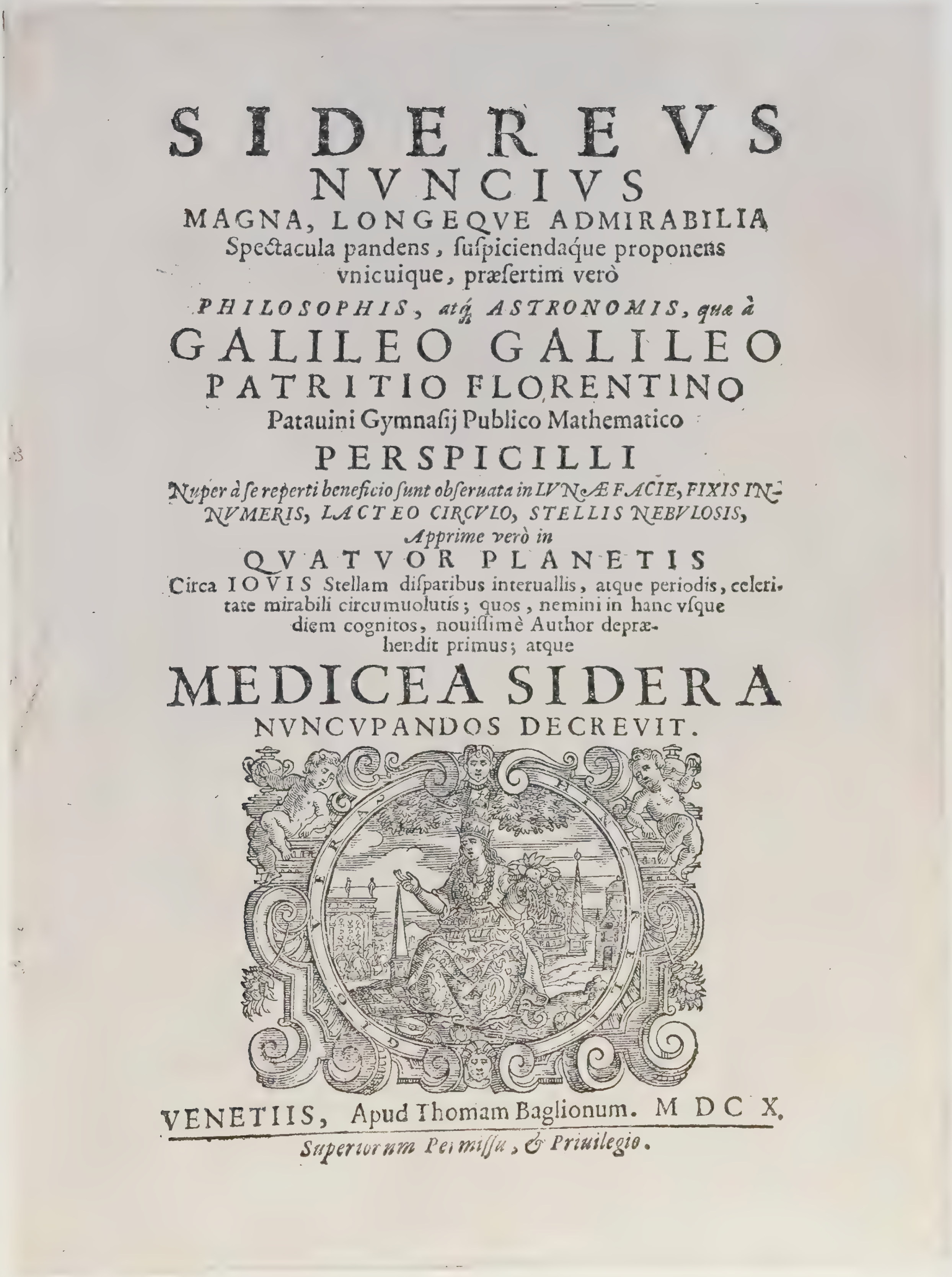
A VERY FINE COPY. Cinti 26; Dibner *Heralds of Science* 7; Grolier/Horblit 35; PMM 113; Norman 855.

[*Bound with*:]

DOMINIS, Marko Antonije (1560-1626). *De radiis visus et lucis in vitris perspectivis et iride tractatus.* Edited by Giovanni Bartoli. Venice: Tommaso Baglioni, 1611.

4°, Baglioni's woodcut device on title, woodcut diagrams, errata leaf at end. (Light dampstaining.). FIRST EDITION of the principal scientific work by the Croatian physicist and archbishop of Split, containing a theoretical explanation of the telescope and the best early modern discussion of the rainbow, which Dominis held to be caused by refraction and reflection of light in raindrops. Dominis finished his life in a dungeon of the Inquisition, who convicted him of heresy not for his science but for his advocacy of a unified Christian religion. The association in one binding of these two works is of interest, for "the mistaken notion that Galileo invented the telescope has its source in the preface to Dominis's work" (Norman). Norman 645.

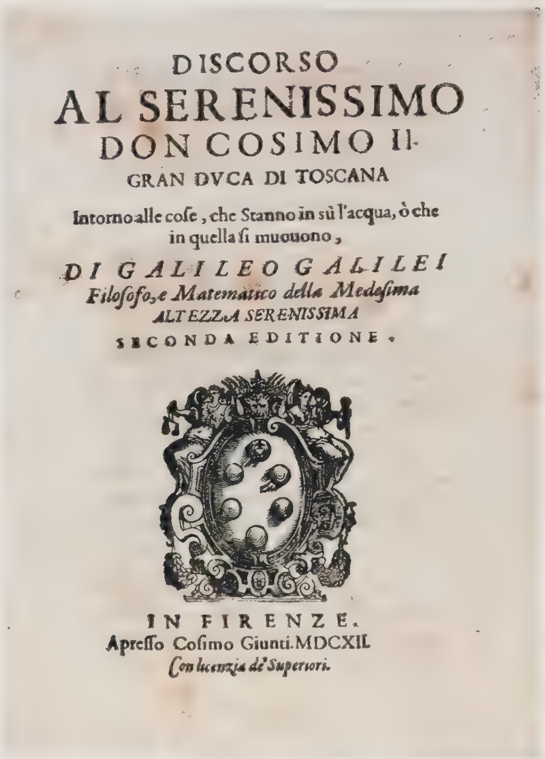
Estimate: $60,000-80,000



SIDEREVS
NVNCIVS
MAGNA, LONGEQVE ADMIRABILIA
Spectacula pandens, ſuſpiciendaque proponens
vnicuique, præſertim verò
PHILOSOPHIS, atq; ASTRONOMIS, quæ à
GALILEO GALILEO
PATRITIO FLORENTINO
Patauini Gymnaſij Publico Mathematico
PERSPICILLI
Nuper à ſe reperti beneficio ſunt obſeruata in LVNÆ FACIE, FIXIS INNVMERIS, LACTEO CIRCVLO, STELLIS NEBVLOSIS,
Apprime verò in
QVATVOR PLANETIS
Circa IOVIS Stellam diſparibus interuallis, atque periodis, celeritate mirabili circumuolutis; quos, nemini in hanc vſque
diem cognitos, nouiſſimè Author depræhendit primus; atque
MEDICEA SIDERA
NVNCVPANDOS DECREVIT.

VENETIIS, Apud Thomam Baglionum. M D C X.
Superiorum Permiſſu, & Priuilegio.

454 (actual size)



DISCORSO
AL SERENISSIMO
DON COSIMO II.
GRAN DVCA DI TOSCANA
Intorno alle coſe, che Stanno in sù l'acqua, ò che
in quella ſi muouono,
DI GALILEO GALILEI
Filoſofo, e Matematico della Medeſima
ALTEZZA SERENISSIMA
SECONDA EDITIONE.

IN FIRENZE.
Appreſſo Coſimo Giunti. MDCXII.
Con licenzia de' Superiori.

455

GALILEI, Galileo (1564-1642). *Discorso al serenissimo Don Cosimo Il Gran Duca di Toscana, intorno alle cose, che stanno in sù l'acqua, ò che in quella si muovono.* Florence: Cosimo Giunti, 1612.

4° (208 x 154 mm). Italic type, revised passages in roman type, woodcut of Medici arms on title, 15 woodcut text diagrams, printer's large woodcut device on recto of last leaf, woodcut initials. (Scattered light foxing.) Contemporary limp vellum.

Second edition, extensively augmented, of Galileo's treatise on the properties of bodies in water. In 1611 "Galileo became involved in a controversy over floating bodies... Maffeo Barberini—then a cardinal but later to become pope—took Galileo's side in the dispute" (DSB). In the treatise that he composed on the subject Galileo proved the Archimidean principle that a solid body's ability to float is a function of the relative densities of the object and the fluid, disproving Aristotle's erroneous supposition that the shape of the object was the deciding factor. He showed furthermore that pressure is transmitted through the whole mass of a fluid. "Using the concept of moment and the principle of virtual velocities, Galileo extended the scope of the Archimedean work beyond purely hydrostatic considerations" (DSB).

The first edition was published earlier the same year. Giunta explains in his preface that the great demand for the work inspired him to print a second edition, and that the author decided to take advantage of the occasion to expand upon certain passages that he deemed unclear, without going to the trouble of a total revision of the existing text. In order to permit the reader to distinguish the additional material, the new passages are printed in a different typeface.

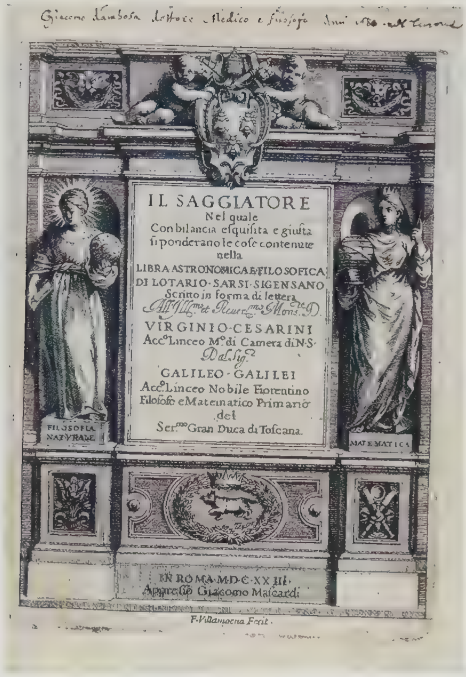
Assailed by criticism for this attack on Aristotelian authority, Galileo published a reply to his critics in 1615, under the name of his pupil and colleague Benedetto Castelli, in which he enlarged upon his scientific argument and presented a vigorous philosophical defense of his position. Carli and Favaro 48; Cinti 35; Norman 856.

[*With:*]

[GALILEI]. PRETE, Sesto. *Galileo's letter about the libration of the moon. A critical study, transcription, and translation.* New York: John F. Fleming, 1965. (324 x 230 mm). 7-page photographic facsimile of Galileo's autograph letter. Publisher's wrappers. *Provenance:* PRESENTATION COPY from John Fleming and Harrison Horblit to Haskell Norman (their inscriptions on half-title). Norman 860.

(2)

Estimate: $2,500-3,500



Giacomo d'Ambosa dottore Medico e filosofo Anni 1680 [illegible]

IL SAGGIATORE
Nel quale
Con bilancia eſquiſita e giuſta
ſi ponderano le coſe contenute
nella
LIBRA ASTRONOMICA E FILOSOFICA
DI LOTARIO·SARSI·SIGENSANO
Scritto in forma di lettera
All'Ill.^{mo} et Reuer.^{mo} Mons.^{re} D.
VIRGINIO·CESARINI
Acc.^{o} Linceo M.^{o} di Camera di N.S.
Dal Sig.^{r}
GALILEO·GALILEI
Acc.^{o} Linceo Nobile Fiorentino
Filoſofo e Matematico Primario
del
Ser.^{mo} Gran Duca di Toſcana.

IN ROMA·M·D·C·XX·III·
Appreſſo Giacomo Maſcardi

F·Villamoena Fecit·

○456

GALILEI, Galileo (1564-1642). *Il saggiatore nel quale con bilancia esquisita e giusta si ponderano le cose contenute nella libra astronomica e filosofica di Lotario Sarsi*. Rome: Giacomo Mascardi, 1623.

4° (213 x 152 mm). Engraved title by F. Villamena, 18 engraved diagrams in text, typographic headpiece ornament, woodcut initials and tail-pieces. 16 lines of errata on Ff6v (last text page). (Lacking engraved portrait, supplied in facsimile, occasional light browning, light dampstaining in quire C, small wormtrack affecting upper portion of text of a dozen leaves, minor marginal repair to Aa2.) 19th- or 20th-century vellum over pasteboard, earlier calf lettering-piece preserved.

Provenance: Giacomo d'Ambosa, doctor of medicine and philosopher (1680 inscription on title).

FIRST EDITION, FIRST ISSUE, with the shorter errata. Galileo's masterful polemic on the new science was written in response to Orazio Grassi, mathematician at the Jesuit Roman College, who in 1619 had published, under the pseudonym Lotario Sarsi, an attack on Galileo after the latter had criticized his views on comets. Unable to defend the Copernican doctrine, declared heretical in 1616, Galileo avoided all discussion of the world's movement in his response, addressed to a young admirer named Virginio Cesarini, concentrating instead on a general discussion of the proper scientific approach to the investigation of celestial phenomena. The crux of his argument was that no theory of comets could be advanced unless it could be proven that they were concrete moving objects rather than mere optical effects of solar light, a proof that he considered impossible. In advancing this thesis he set forth some fundamental axioms of the modern scientific method: he "distinguished physical properties of objects from their sensory effects, repudiated authority in any matter that was subject to direct investigation, and remarked that the book of nature, being written in mathematical characters, could be deciphered only by those who knew mathematics" (DSB).

Il Saggiatore was dedicated at the last minute to the new Pope Urban VIII, Maffeo Barberini, Galileo's friend and a patron of science and the arts. Galileo was in Florence during the printing and could not supervise the corrections, so the first issue contains only 16 errata; Galileo had an additional errata leaf printed for the second issue, which was revised to a total of 137 errata for the third and final issue. This copy includes the often lacking four preliminary leaves (signature a^{4}) containing commendatory verses by Johannes Faber and Francesco Stelluti. The engraving on Ee1r is the earliest published illustration of the ring of Saturn, the planet Mars in inferior and superior conjunction, and the phases of Venus. According to Mario Biagioli (*Galileo courtier*, p. 297), the edition had a press-run of fewer than 400 copies.

Carli and Favaro 95; Cinti 73; Riccardi I, 511; Norman 857.

Estimate: $3,000-4,000

457

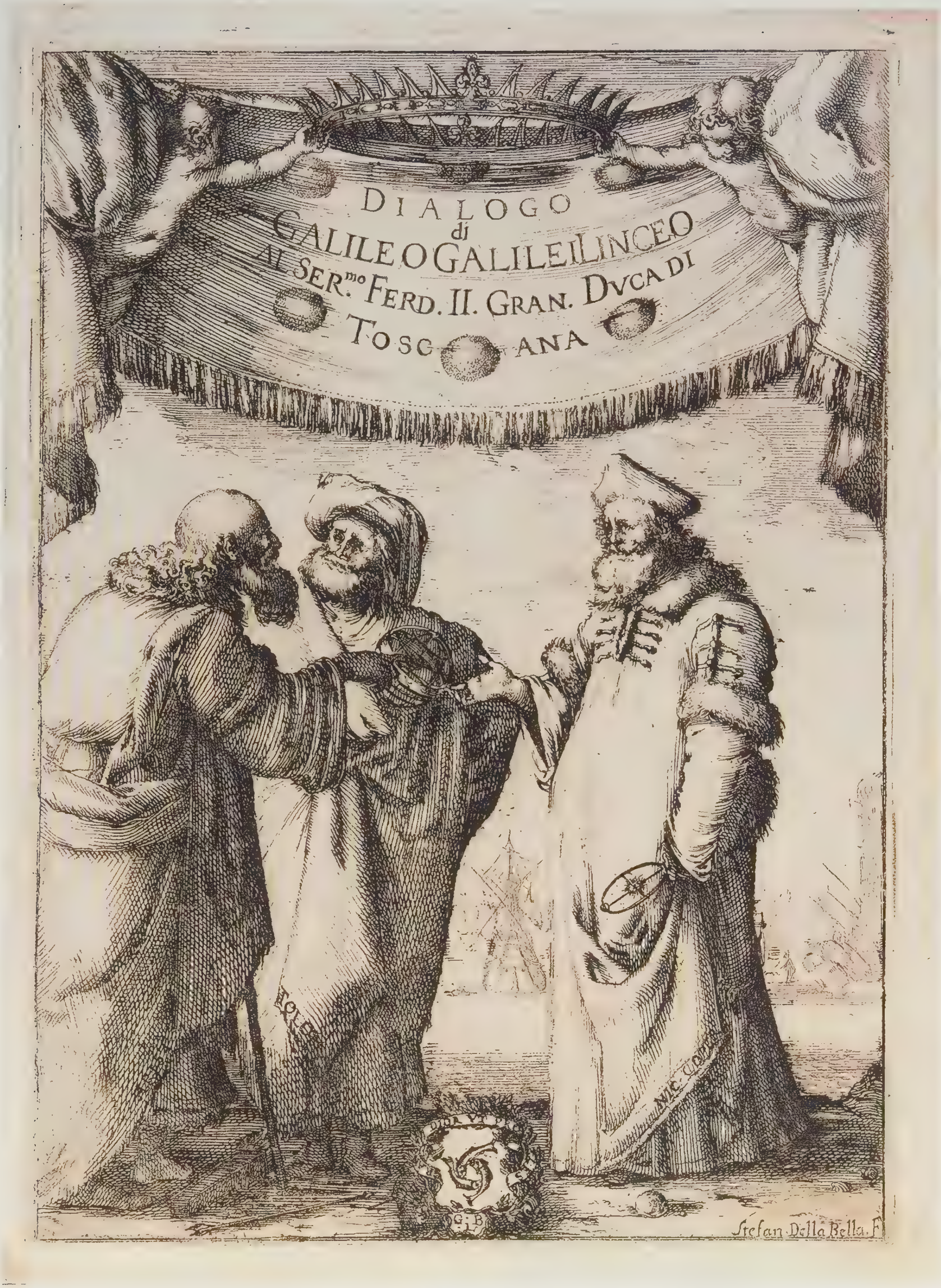
GALILEI, Galileo (1564-1642). *Dialogo...sopre i due massimi sistemi del mondo Tolemaico, e Copernicano*. Florence: Gian Battista Landini, 1632.

4° (216 x 158 mm). Additional engraved title by Stefano della Bella, italic type, shoulder notes in roman type, printer's woodcut device on title, 31 woodcut illustrations and diagrams in the text, woodcut initial, type ornament head-and tail-pieces and factotum initials, errata leaf Ff6, with the printed correction slip pasted in margin of F6v (p.92) as usual. (Final blank leaf removed, some foxing and browning, 3 or 4 minor marginal tears.) 18th-century half sheep, spine gilt panelled, red morocco lettering-piece (upper joint split, some worming, rubbed.) *Provenance*: Manuscript correction adding the letter H to diagram on M8v (p.192), as in a few other copies.

FIRST EDITION of Galileo's celebrated defense of the Copernican view of the solar system. In 1624 the new pope Urban VIII granted Galileo permission to discuss the Copernican system in a book, "provided that the arguments for the Ptolemaic view were given an equal and impartial discussion" (DSB). Galileo executed this order literally in the work that occupied him for the next six years, presenting it in the form of a dialogue between three protagonists, Salviati, an advocate of the Copernican theory, Simplicio, an upholder of the Ptolemaic orthodoxy and generally interpreted as representing Pope Urban VIII, and Sagredo, an impartial educated layman who acts as adjudicator. While his preface ostensibly supported the anti-Copernicans, the dialogue device permitted Galileo to present without disguise his true views of the cosmos. The work "was designed both as an appeal to the great public and as an escape from silence ... it is a masterly polemic for the new science. It displays all the great discoveries in the heavens which the ancients had ignored; it inveighs against the sterility, wilfulness, and ignorance of those who defend their systems; it revels in the simplicity of Copernican thought and, above all, it teaches that the movement of the earth makes sense in philosophy, that is, in physics... The *Dialogo*, more than any other work, made the heliocentric system a commonplace" (PMM). Galileo's risky portrayal of his old friend and protector Maffeo Barberini, now Urban VIII, as the simple-minded Aristotelian Simplicius was the cause of his arrest and trial by the Inquisition. His sentence of life imprisonment was immediately commuted to permanent house arrest, but the printing of any of his works was forbidden, and the *Dialogo* remained on the *Index* until 1832.

Carli and Favaro, p. 28; Cinti 89; Dibner *Heralds of Science* 8; Grolier/Horblit 18c; PMM 128; Welcome 2647a; Norman 858.

Estimate: $10,000-15,000



457 (*actual size*)

458

GALILEI, Galileo (1564-1642). *Discorsi e dimostrazioni matematiche, intorno à due nuove scienze attenenti alla mecanica & i movimenti locali.* Leiden: Elzevier Press, 1638.

4° (200 x 150 mm). Text of the dialogues in italic type, formal proofs in roman type, errata leaf at end, printers' woodcut device on title, numerous woodcut illustrations and diagrams in text, letterpress tables, woodcut initials, headpieces and tailpiece. (Occasional marginal soiling or staining, blank corner of G4 torn away.) 18th-century vellum over pasteboard, earlier morocco lettering-piece preserved (small hole to vellum of lower cover, free endpapers worn). *Provenance*: a very few small manuscript corrections to text (C1r, Ll4r, Nn3v); Laloubdre (18th-century inscription on title).

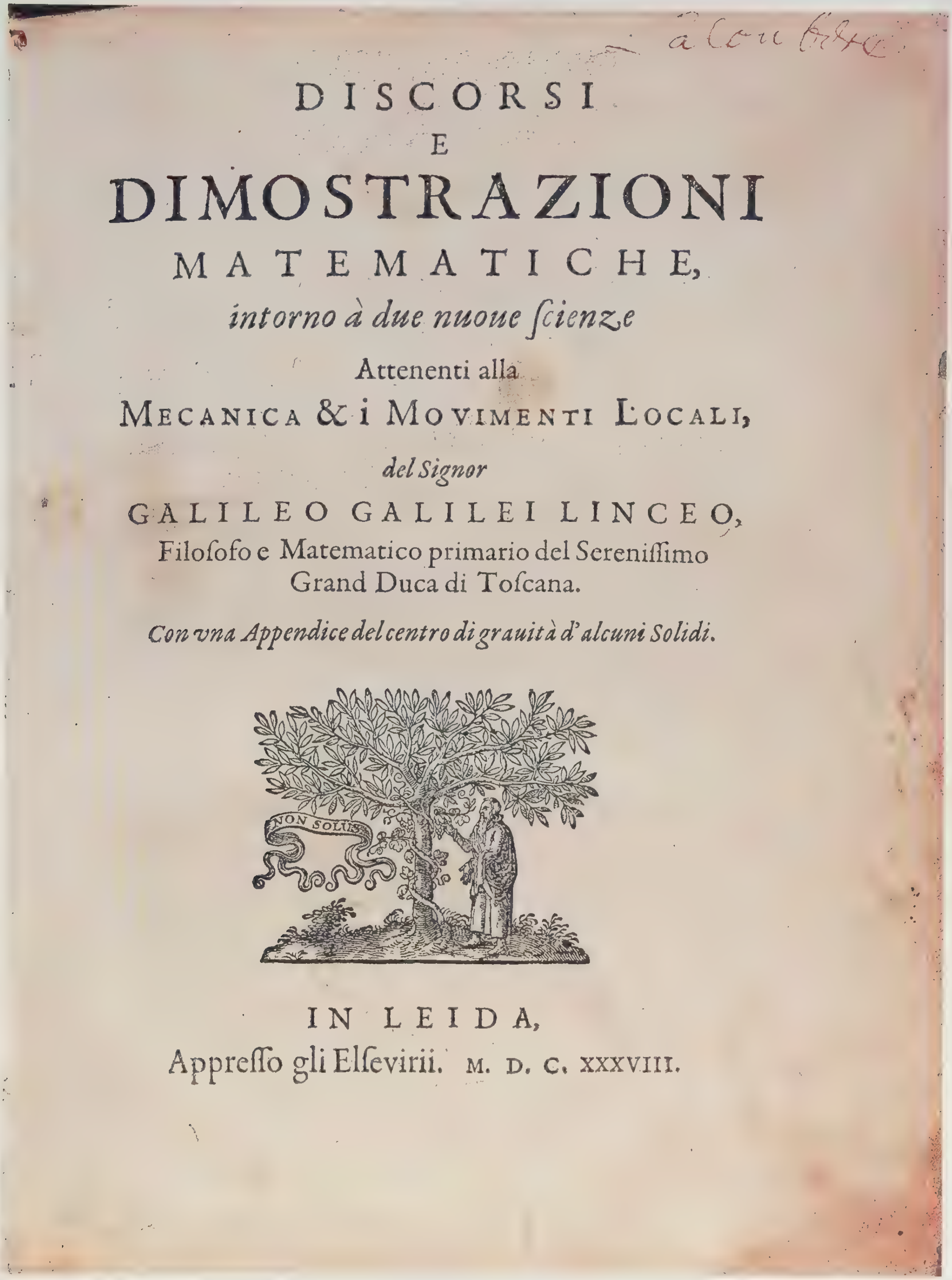
FIRST EDITION OF GALILEO'S LAST WORK, THE FIRST MODERN TEXTBOOK OF PHYSICS AND A FUNDAMENTAL WORK FOR THE SCIENCE OF MECHANICS. The results of his trial had left Galileo "so crushed that his life had been feared for" (DSB), and it was only at the urgings of his friend and supporter the Archbishop of Siena Ascanio Piccolomini that Galileo set about pulling together his life's work in physics. He presented the work in dialogue form, with the same interlocutors as those of the condemned *Dialogo*. Forbidden to publish in Florence or Rome by the Congregation of the Index, and unable to obtain an ecclesiastical licence to print the work in Venice, Galileo managed to have a manuscript copy smuggled out of Italy to France, from where it was brought to the Elzeviers in Holland.

The mathematical analyses of the *Discorsi* complement the philosophical discussion of the *Dialogo*. "The two new sciences with which the book principally deals are the engineering science of strength of materials and the mathematical science of kinematics... Of the four dialogues contained in the book, the last two are devoted to the treatment of uniform and accelerated motion and the discussion of parabolic trajectories. The first two deal with problems related to the constitution of matter; the nature of mathematics; the place of experiment and reason in science; the weight of air; the nature of sound; the speed of light; and other fragmentary comments on physics as a whole. Thus Galileo's *Two New Sciences* underlies modern physics not only because it contains the elements of the mathematical treatment of motion, but also because most of the problems that came rather quickly to be seen as problems amenable to physical experiment and mathematical analysis were gathered together in this book with suggestive discussions of their possible solution" (DSB). "The Aristotelian concept of motion was replaced by a new one of *inertia* and general principles were sought and found in the motion of falling bodies, projectiles and in the pendulum... The concept of mass was implied by Galileo's conviction that in a vacuum all bodies would fall with the same acceleration" (Dibner). "Mathematicians and physicists of the later seventeenth century, Isaac Newton among them, rightly supposed that Galileo had begun a new era in the science of mechanics. It was upon his foundations that Huygens, Newton and others were able to erect the frame of the science of dynamics, and to extend its range (with the concept of universal gravitation) to the heavenly bodies" (PMM).

Carli and Favaro 162; Cinti 102; Dibner *Heralds of Science* 141; Grolier/Horblit 36; PMM 130; Roberts & Trent *Bibliotheca Mechanica*, p. 129; Wellcome 2648; Willems 468; Norman 859.

Estimate: $15,000-20,000

458 (detail)



à Lou [illegible]

DISCORSI
E
DIMOSTRAZIONI
MATEMATICHE,
intorno à due nuoue ſcienze
Attenenti alla
MECANICA & i MOVIMENTI LOCALI,
del Signor
GALILEO GALILEI LINCEO,
Filoſofo e Matematico primario del Sereniſſimo
Grand Duca di Toſcana.
Con vna Appendice del centro di grauità d'alcuni Solidi.

IN LEIDA,
Appreſſo gli Elſevirii. M. D. C. XXXVIII.

458 (actual size)

ↄ459

GALL, Franz Joseph (1758-1828) and Johann Caspar SPURZHEIM (1776-1832). *Anatomie et physiologie systême nerveux en général, et du cerveau en particulier.* Paris: F. Schoell, 1810-1812 [Vols. I-II and atlas], Librairie Grecque-Latine-Allemande, 1818 [Vol. III], N. Maze, 1819 [Vol. IV].

5 volumes (including atlas volume), 2° (545 x 362 mm). 100 engraved plates (including one double-page). Contemporary boards, uncut (modern calf rebacking in antique style).

FIRST EDITION. "This elaborately produced work attests to the fact that, despite his later fall into disrepute, Gall was an excellent anatomist. A number of original anatomical observations are introduced in this five volume work, including the concept of localization of brain function. Because Spurzheim parted with Gall in 1814, only the first two volumes were produced collaboratively. The one hundred plates which comprise the atlas are exquisitely rendered" (*Heirs of Hippocrates*). Garrison-Morton 1389; *Heirs of Hippocrates* 1159; Wellcome III, p. 84; Norman 862.

(5)

Estimate: $3,000-4,000

ↄ460

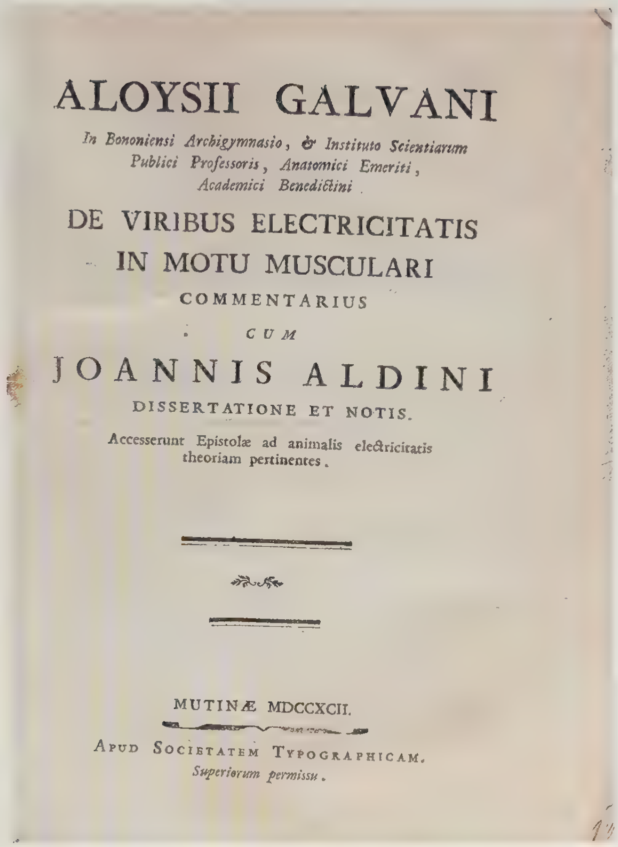
GALVANI, Luigi (1737-1798). *De viribus electricitatis in motu musculari commentarius cum Joannis Aldini dissertatione et notis. Accesserunt epistolae ad animalis electricitatis theoriam pertinentes.* Modena: apud Societatem Typographicam, 1792.

4° (250 x 184 mm). 3 folding engraved plates printed in sanguine, plate 3 in the first state, with the letter "E" in figure 22 uncorrected. Woodcut headpiece, c6 blank and present. (Mostly light dampstain to corners, a3 with small tear catching footnotes.) Original plain blue wrappers (backstrip torn and soiled); folding cloth case.

Second edition. Luigi Galvani, Professor of Anatomy at Bologna, became interested in the study of the physiology of nerves and muscles in the 1770s, and "began in late 1780 an extensive and meticulous series of investigations into the irritable responses elicited by static electricity in properly prepared frogs" (DSB). In the course of these experiments he hit quite by accident upon the central phenomenon of "galvanism": the production of an electric current betwen two metals in a moist environment. "He did not, however, interpret his own discovery this way. Instead, Galvani thought that he had finally obtained confirmation for the suspicion, entertained from time to time during the eighteenth century, that animals possess in their nerves and muscles a subtle fluid quite analogous to ordinary electricity" (DSB). He first published his theory in 1791, in volume V of the proceedings of the Bologna Academy of Science, where it aroused great interest and controversy. The offprint of his article, the first separate edition of the work, is known in only a dozen copies. This first edition in book form is the first to contain the notes and commentary by Giovanni Aldini, Galvani's nephew and principal apologist, containing his own theory of animal electricity. The appended "epistolae" consist of an exchange of letters (in Italian) between Don Bassano Carminati and Galvani, containing Carminati's report of Volta's repetition of Galvani's experiments, which Volta interpreted correctly as the result of contact electricity. This would lead to his invention of the voltaic pile and the first continuous and controllable electric current.

Fulton and Stanton *Galvani*, 5; Osler 1243; Waller 11346; Wellcome III, p. 86; Wheeler Gift 575; Norman 869.

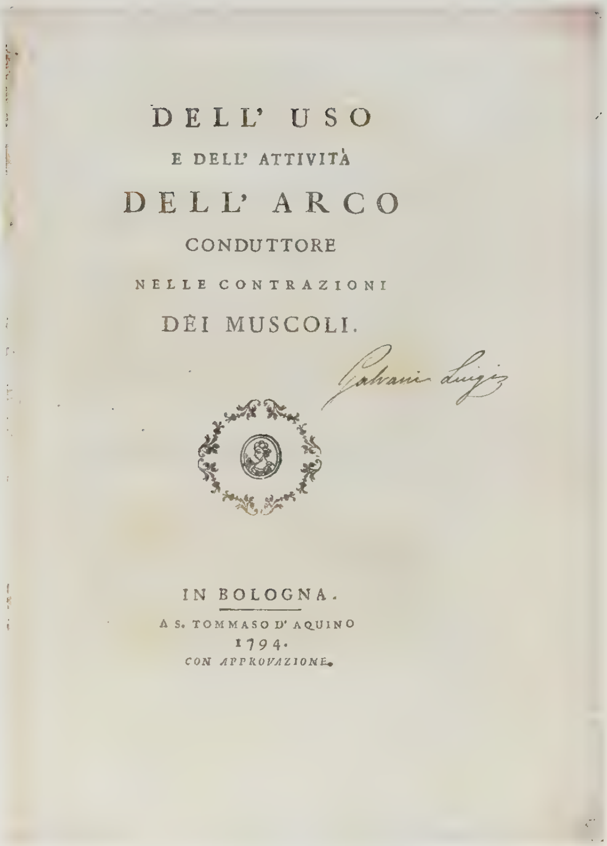
Estimate: $4,000-6,000



ALOYSII GALVANI
In Bononiensi Archigymnasio, & Instituto Scientiarum
Publici Professoris, Anatomici Emeriti,
Academici Benedictini
DE VIRIBUS ELECTRICITATIS
IN MOTU MUSCULARI
COMMENTARIUS
CUM
JOANNIS ALDINI
DISSERTATIONE ET NOTIS.
Accesserunt Epistolæ ad animalis electricitatis
theoriam pertinentes.

MUTINÆ MDCCXCII.
Apud Societatem Typographicam.
Superiorum permissu.

460



DELL' USO
E DELL' ATTIVITÀ
DELL' ARCO
CONDUTTORE
NELLE CONTRAZIONI
DEI MUSCOLI.

Galvani Luigi

IN BOLOGNA.
A S. TOMMASO D' AQUINO
1794.
CON APPROVAZIONE.

462

○461

[GALVANI, Luigi (1737-1798) and Alessandro VOLTA (1745-1827)]. *Memorie sull elettricità animale inserite nel giornale fisico-medico del Sig, Brugnatelli.* Offprint from: *Giornale fisico-medicale*, volume II, 1792. Pavia: Baldassare Comini, 1792.

8° (214 x 134 mm). Divisional title to part 3 of the *Memorie*, drop titles to other parts. (Foxing.) Original plain blue wrappers, manuscript paper lettering-piece on spine, uncut; cloth folding case. FIRST SEPARATE APPEARANCE of a collection of letters and articles concerning the correct interepretation of Galvani's electrical discoveries. When Volta had first heard of Galvani's discoveries concerning the electrical excitation of disembodied frog's legs, he dismissed them as unbelievable. Urged by colleagues to repeat Galvani's experiments, he was surprised to see the latter's results confirmed, but he quickly concluded that "animal electricity" played no part in them, and that the spasms were the result of purely external electrical stimulation. Further experimentation with whole frogs and other animals confirmed his suspicion that the electric current resulted from the contact of two dissimilar metals in a moist environment. He announced his initial discovery in the three-part *Memorie... sull' elettricità animale*, published in this collection along with the Carminati-Galvani correspondence of 3 April and 8 May 1792 (see preceding lot), and a letter, also dated April 3rd, from Volta to Dr. Baronio, a physician at the Ospedale Maggiore in Milan. Fulton and Stanton *Galvani* 19; Wheeler Gift 577; Norman 870.

Estimate: $2,000-3,000

ɔ462

[GALVANI, Luigi (1737-1798) and(?) Giovanni ALDINI (1762-1834)]. *Dell'uso e dell'attività dell'arco conduttore nelle contrazioni dei muscoli. -Supplemento al trattato dell'uso... dell arco conduttore.* Bologna: a S. Tommaso d'Aquino, 1794.

4° (219 x 159 mm). Collation: a-k^8 l^4; *a*^{12}. 96 leaves. (Light mostly marginal foxing, marginal dampstain to last few leaves.) Modern marbled paper wrappers, preserving original pastedown endpapers, edges uncut; folding cloth case.

FIRST EDITION, including the very rare *Supplement*, containing the first published description of Galvani's electrical experiments without metals, in which he demonstrated the existence of electrical forces within living animal tissue. Challenged by Volta's disagreement to prove his theory of animal electricity, Galvani undertook experiments involving only frog nerve-muscle preparations (without metals), and showed that convulsive contractions could be produced merely by touching nerves to muscles. The account of these experiments appears in the 24-page *Supplemento*, which is not included in all copies. "This observation of the injury current of nerve or demarcation current was the first proof of animal electricty" (Garrison-Morton). "When Galvani died, prospects for the survival of his theory were very uncertain. Nevertheless, support for the concept of animal electricity survived into the nineteenth century and ultimately led in the 1840s to the basic work of Emil du Bois-Reymond" (DSB).

The precise authorship of this rare work is uncertain. Silvestro Gherardi, the editor of Galvani's collected works (Bologna, 1841), attributed the work to Galvani alone, but other scholars have considered it to be a collaborative effort between Galvani and his nephew Giovanni Aldini, professor of physics at the University of Bologna, who championed his retiring uncle's cause and carried on most of the correspondence, publishing and lecturing in the controversy aroused by Galvani's theory.

Fulton and Stanton *Galvani* 24; Garrison-Morton 594.1; Norman 871.

Estimate: $8,000-12,000

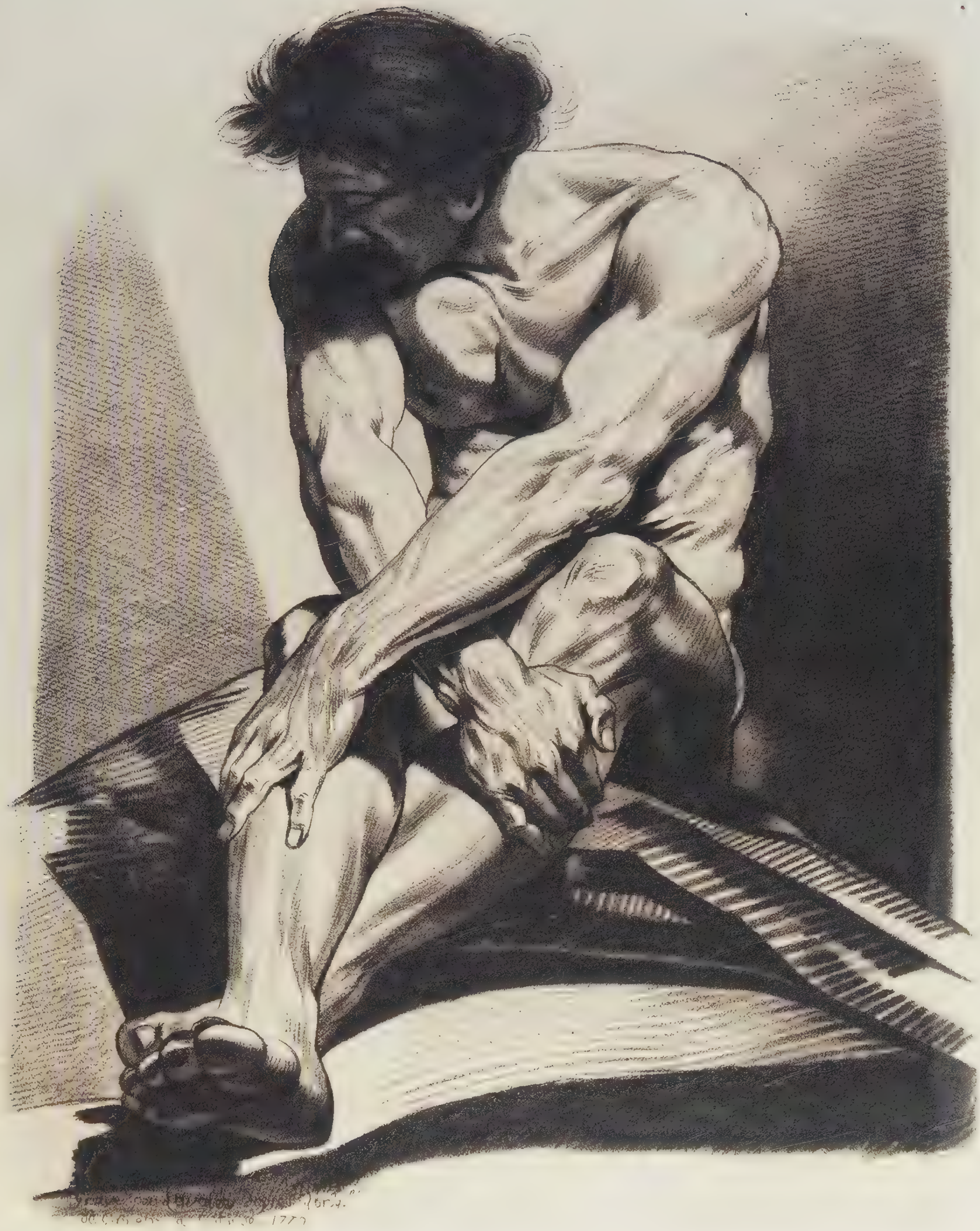
ɔ463

GAMELIN, Jacques (1738-1803). *Nouveau recueil d'ostéologie et de myologie, dessiné d'après nature ... pour l'utilité des sciences et des arts.* Toulouse: J.F. Desclassan, 1779.

2 parts in one volume, broadsheets (545 x 417 mm). 38 leaves, including title-pages for each part and privelege leaf at end. 2 etched frontispieces, 2 etched title-vignettes, etched portrait of Baron de Puymaurin with a dedication by Gamelin below, 9 large etched vignettes in text, 82 engraved plates, including 11 preceded by outline plates keyed to the text (approximately 12 plates stained or damaged, one overslip torn, a few plates from second part bound with the first part). Contemporary marbled sheep gilt (some wear at corners). *Provenance*: M. Copasson? (stamp erased from title and portrait).

FIRST EDITION. Although predominantly anatomical, the plates include a number of fantastic or macabre subjects, which are considered to prefigure Goya's *Los Caprichos*. Gamelin was born at Carcassonne and studied at Toulouse, Paris and Rome, where in 1771 he was admitted to the academy of St. Luke and became chief painter to Pope Clement XVI. He returned to Toulouse in 1774, where he published this work in 1779. It is dedicated to his patron, the Baron de Puymerin, the plates were designed by Gamelin himself. "The plates in this work are more fantastic than any other anatomy, suggesting the work of Goya, who may have known or studied with Gamelin since Gamelin taught in Rome during the time Goya was there" (Garrison-Morton). Although all the plates were designed by Gamelin and 18 bear his signature, most were executed by Jacques Lavallée (and a few by Martin). The illustrations in the first part, dealing with bones, are predominantly etchings or line-engravings or a combination of both. In the second part, which deals with muscles, the plates are soft-ground etchings, in the *maniére de crayon*, achieving original effects. The Norman copy contains an additional outline plate in Part 1 and the additional plate in Part 2 (*La Philosophie*). VERY RARE. Choulant-Frank, p. 352; Campbell Dodgson, "The Macabre in Two Centuries," in: *Print Collector's Quarterly* (April, 1929) XVI, pp. 135-43; Garrison-Morton 401.1; NLM/Blake 165; Waller 3404; Norman 872.

Estimate: $10,000-15,000



)464

GENGA, Bernardino (1620-1690). *Anatomia per uso et intelligenza del disegnoricercata non solo su gl'ossi, e muscoli del corpo humano; ma dimostrata ancora su le statue antiche piu insigni di Roma.* Edited and with commentary by Giovanni Maria Lancisi (1654-1720). Rome: Domenico de Rossi, 1691.

2° (476 x 350 mm). 56 leaves, engraved throughout. Title, frontispiece, 15 tables and indices (printed on rectos only), 40 fine plates probably by Fraçois Andriot after designs by Charles Errard. (Some very minor pale spotting, mostly marginal, one plate with some minor browning.) 18th-century Italian vellum. *Provenance*: J.T.G. Sonneman, Rome (signature dated 1706).

FIRST EDITION OF ONE OF THE FINEST ANATOMY BOOKS FOR ARTISTS. "This large atlas contains forty magnificent full-page engraved plates depicting the human figure in various poses, with and without dissection ... The plates, probably engraved by François Andriot after designs by Charles Errard, were intended primarily for the use of painters and sculptors, and they are still considered to be one of the best collections for the use of student artists" (*Heirs of Hippocrates*). Choulant-Frank, pp. 254-55; Garrison-Morton 386; *Heirs of Hippocrates* 531; NLM/Krivatsy 4655 (variant issue of title-page with "libro primo" on title [but all published], as the Norman copy); Waller 5540; Wellcome III, pp. 102-03; Norman 888.

[*Bound with*:]

ROSSI, Domenico de. *Studio d'Architettura Civile sopra gli Ornamenti di Porti de Finestre.* Rome: Domenico de Rossi, 1702.

Volume I only (of 3), 2° (477 x 350 mm). 2 pp. of letterpress text (on 2 leaves), otherwise engraved throughout. Title, dedication and 139 plates (8 double-page or folding). (Some leaves with very minor light marginal spotting.) FIRST EDITION. The third volume appeared in 1721, the completed work includes 282 plates. Cf. Berlin Kat. 2681; cf. Brunet V, 1405.

Estimate: $4,000-6,000

)465

[GEORGE III (1738-1820)]. — *Report from the Committee appointed to Examine the Physicians who have attended His Majesty during his illness, Touching the State of His Majesty's Health.* [London: by order of the House of Commons], 1788. 2° (337 x 211 mm). Stabbed as issued, uncut. FIRST EDITION. Norman 889. — *Report from the Committee appointed to examine the Physicians who have attended His Majesty during his illness, Touching the present State of His Majesty's Health.* [London: n.p., 1789]. 2° (338 x 211 mm). Stabbed as issued, uncut (occasional minor foxing). FIRST EDITION. Norman 890. — *Die Jovis, 11 Decembris 1788. By the Lords Committee appointed to examine the Physicians who have attended His Majesty during His Illness touching the State of His Majesty's Health.* [London: n.p., 1788]. 2° (318 x 193 mm). (Occasional minor foxing). Contemporary gilt-bordered calf, red leather spine label (worn; joints spliting). FIRST EDITION. Norman 891. [Bound with:] — *Report from the Committee appointed to Examine and Report Precedents of such Proceedings as may have been had in the Case of the Personal Exercise of the Royal Authority being prevented or interrupted by Infancy, Sickness, Infirmity, or otherwise, with a View to provide a Remedy for the same.* [London: n.p., 1788]. 2° (318 x 193 mm). FIRST EDITION. Norman 892. *A form of prayer and thanksgiving to Almighty God; to be used in all chapels and churches ... the twenty-third day of April, being the day appointed ... for a general thanksgiving to Almighty God ... in delivering our most gracious Sovereign from the severe illness with which he hath been afflicted.* London: Charles Eyre & Andrew Strahan, 1789. 4° (216 x 168 mm). Stabbed as issued, uncut. FIRST EDITION. Norman 893. — *The history and proceedings of the Lords and Commons of Great-Britian, in Parliament, with regard to the Regency: containing a full account of all their speeches on the proposed regency bill, from November 20, 1788 to march 10, 1789 ... to which are added, the three reports of the Physicians; Mr. Pitt's letter to the Prince of Wales, with His Royal Highness's Answer; The Regency Bill, as it passed the House of Commons ...; and the Speeches of the Lords and Commons of Ireland, on appointing the Prince of Wales Regent without restrictions.* London: John Stockdale, 1789. 8° (232 x

145 mm). Uncut, a few quires partially unopened. Separate title pages for each work (occasional very light browning and foxing). Modern half calf, black leather spine label, marbled boards. FIRST COLLECTED EDITION. Norman 894. — *An history of the late important period; from the begining of His Majesty's Illness to the Settlement of the Executice Government, in the Appointment of a Regent: To which are added observations on the conduct of the two contending parties, to the period of His Majesty's re-appearance in the House of Lords.* London: Logographic Press for J. Walter, C. Stalker, and W. Richardson, 1789. 8° (211 x 131 mm). Contemporary calf, gilt spine with red leather label. *Provenance*: Engraved armorial bookplate of Yarborough; bookseller's ticket of Wallason, London. FIRST EDITION. Norman 895. — *An Act for regulating madhouses* [drop title]. In: *Anno regni Georgii III ... decimo quarto. At the Parliament begun ... the Tenth Day of May ...1768.* London: Charles Eyre and William Strahan, 1774. 2° (309 x 192 mm). Disbound. FIRST EDITION. Norman 5. — *An Act to continue an Act ... (intituled, An Act for regulating Madhouses) ...* [drop-title]. In: *Anno Decimo Nono Georgii III Regis.* [N.p, n.d., (1779)]. Broadsheet (299 x 199 mm). FIRST EDITION. Norman 6.

George III's fourth attack of mental illness led to great debate over the establishment of the Regency (which was finally established during the fifth and final attack which lasted from 1810-1820, and ended with the King's death), and an increased public awareness of mental illness, stimulating and making respectable the study of psychiatry.

(6)

Estimate: $1,000-2,000

○466

GIFFARD, William (d. 1731). *Cases in midwifery*. Edited by Edward Hody (1698?-1759). London: B. Motte and T. Wotton, 1734.

4° (232 x 178 mm). 3 engraved plates (2 folding), the first showing 5 different forceps, woodcut initials, head- and tail-pieces. (Small stain to 3O4v obscuring 6 or 7 letters, title a bit soiled, occasional light marginal foxing.) Contemporary blind-panelled calf (rebacked, rubbed, a few scrapes to covers).

Provenance: Samuel [Bard?] (1742-1821) (largely eradicated signature on title); David Hosack (1769-1835), American physican and botanist, partner of and successor to Samuel Bard; Thomas Sacketts (1762 inscription); Wilh. Saunders; George Hamilton (inscriptions); H. S. Heath; Gordon W. Jones (bookplates).

FIRST EDITION, LARGE-PAPER ISSUE, of Giffard's series of 225 case histories of difficult deliveries, containing the FIRST PUBLISHED DESCRIPTIONS OF THE USE OF OBSTETRIC FORCEPS, which are illustrated here for the first time. Forceps, known at this period as "extractors," had been in limited use in the 17th century as the "secret instrument" of the Chamberlen family of London physicians, but by the 2nd quarter of the 18th century they were coming into more widespread use. Giffard's case histories refer repeatedly to his use of the instrument. One of Giffard's most frequently reiterated complaints targets the "self-sufficiency" of midwives, which, "joined with an idle notion that they suffer in their Character if they send for a Man's assistance... generally prevents most Midwives from sending early, by which they too often endanger the lives both of Mothers and children, and give no small trouble to the Man-midwife" (pp. 305-306).

A FINE ASSOCIATION COPY. David Hosack was one of the most enlightened physicans of his time as well as an eloquent and effective teacher of medicine. "He was one of the first physicians in America to use the stethoscope, to advocate vaccination, and to limit the use of the lancet" (DAB). He very probably received this copy from his colleague Samuel Bard, founder of New York's first medical school at King's College [Columbia] and author of the first American obstetrical handbook (see lot 274), whose practice he shared before inheriting it.

Garrison-Morton 6156.3; Wellcome III, p.114; Norman 902.

Estimate: $1,000-1,500

467

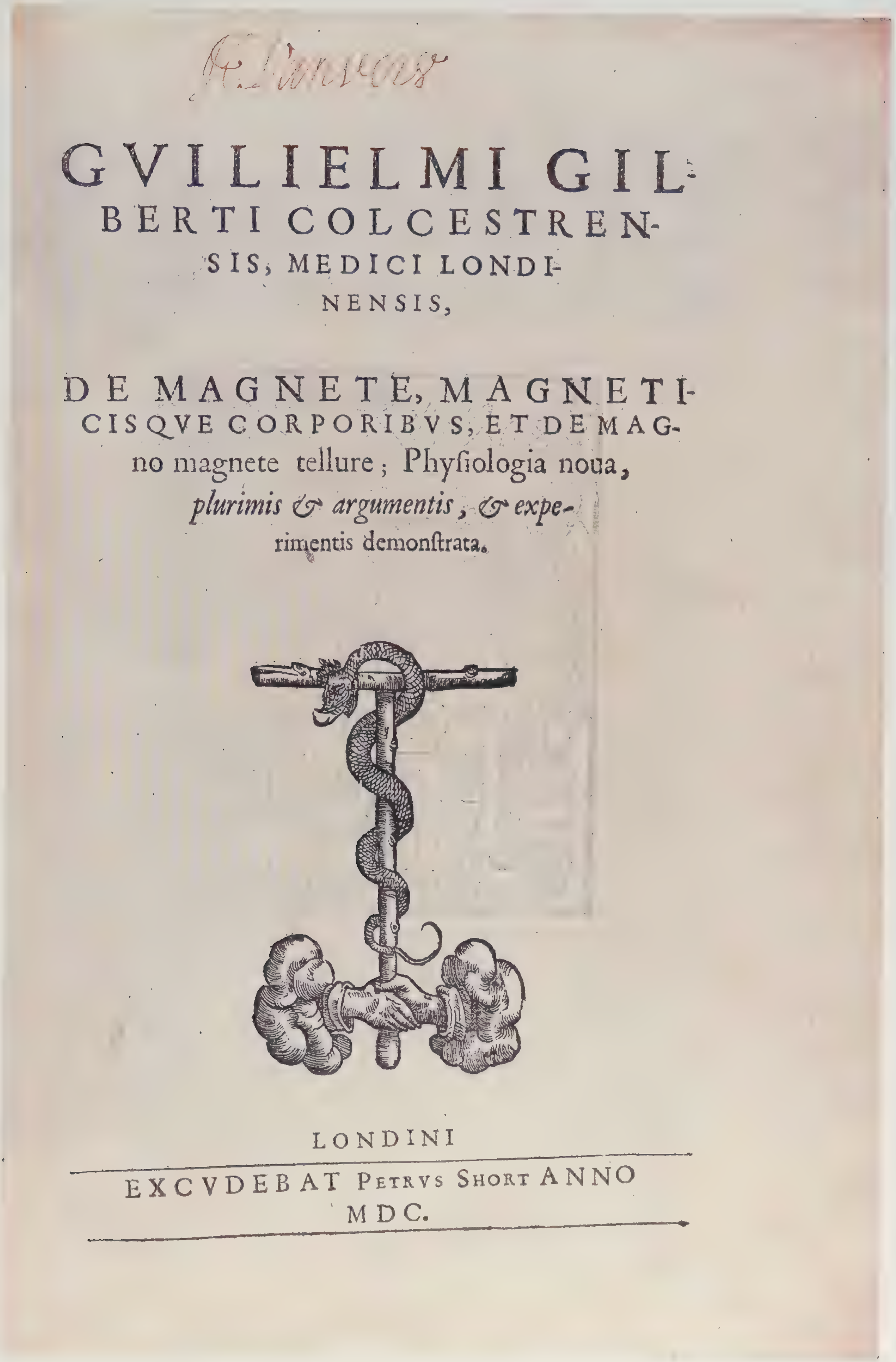
GILBERT, William (1544-1603). *De magnete, magneticisque corporibus, et de mango magnete tellure; Physiologia nova, plurimus & aegumentis, & experimentis demonstrata.* London: Peter Short, 1600.

2° (280 x 191mm). Woodcut caduceus device (McKerrow 119) on title, large woodcut arms on verso, numerous text woodcuts, some full-page, large folding woodcut diagram, historiated woodcut capitals, head- and tail-pieces (E3 and E4 perhaps supplied from another copy), but otherwise a very crisp copy. 17th-century English calf, covers with gilt double fillet borders, edges gilt (rebacked, corners restored); quarter morocco folding case. *Provenance*: J.C. D'Anvers, seventeenth-century signature on title; Myron Prinzmetal (bookplate, sale, Christie's, 20 May 1988, lot 117).

FIRST EDITION of "the first major English scientific treatise based on experimental methods of research. Gilbert was chiefly concerned with magnetism; but as a digression he discusses in his second book the attractive effect of amber (electrum), and thus may be regarded as the founder of electrical science. He coined the terms 'electricity,' 'electric force' and 'electric attraction'" (PMM). In Book One Gilbert "introduced his new basic idea ... that the earth is a gigantic lodestone and thus has magnetic properties" while in Book Two, his observations on the amber effect "introduced the vocabulary of electrics, and is the basis for Gilbert's place in the history of electricity" (DSB). Dibner *Heralds of Science* 54; Grolier/Horblit 41; Heilbron, pp. 169-179; PMM 107; STC 11883; Wellcome 2830; Norman 905 ("Gilbert discussed the five known movements associated with magnets...in terms of the earth's magnetism, using data obtained from experiments with a small spherical magnet...").

Estimate: $8,000-12,000

(detail)



GVILIELMI GILBERTI COLCESTRENSIS, MEDICI LONDINENSIS,

DE MAGNETE, MAGNETICISQVE CORPORIBVS, ET DE MAGNO MAGNETE TELLURE; Phyſiologia noua,
plurimis & argumentis, & experimentis demonſtrata.

LONDINI
EXCVDEBAT PETRVS SHORT ANNO
MDC.

)468

GILBERT, William (1544-1603). *Tractatus sive physiologia nova de magnete, magneticisque corporibus et magno magnete tellure.* Edited by Wolfgang Lochmann (1594-1643). Stettin: Georg Götzke for Johann Hallervord, 1628.

4° (195 x 162 mm). Folding engraved title by Pet. Rollos, 12 etched plates (2 folding), numerous woodcut illustrations and diagrams in text. (Short copy, first 4 leaves with upper margins extended, one line on preliminary leaf and some side-notes shaved.) Contemporary vellum. *Provenance*: some 19th-century notations on half-title verso and a few margins.

Second edition, with variant issue of the title-page mentioning Hallervord in the imprint; another issue exists with Hallervord's name replaced with "sumptibus authoris." VERY SCARCE. BM/STC *German* (17th-c.) G-609; see Dibner *Heralds of Science* 54 (note); Wheeler Gift 72a (note, "very rare"); Norman 906 ("both issues are considerably rarer than the first edition").

Estimate: $2,000-3,000

)469

GLANVILL, Joseph (1636-1680). *Essays on several important subjects in philosophy and religion.* London: by J. D. for John Baker and Henry Mortlock, 1676.

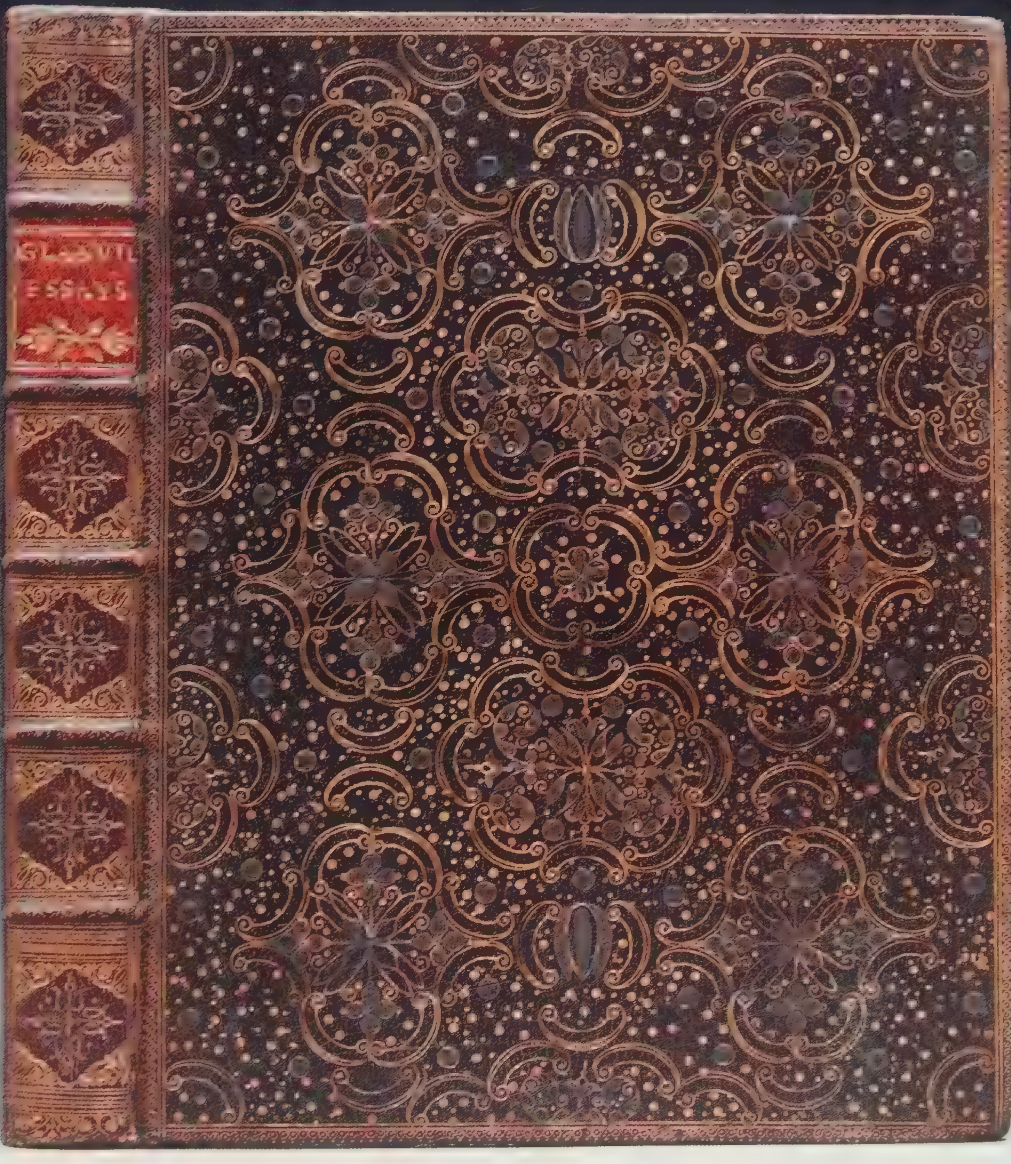
4° (220 x 172 mm). 2-pp. errata (a4), 2 leaves publisher's advertisements at end. Contemporary black morocco by the Queen's Binder A (probably William Nott), covers tooled in gold to an all-over design of drawer-handle tools, pointillé volutes, solid and pointillé fleurons including a large pointillé tulip-flower tool, and dots, within a roll-tooled border, the volutes and floral tools infilled with silver paint, spine in six compartments, red morocco lettering-piece in the second, the remainder with central assemblage of small pointillé leaf tools picked out with black paint and framed by gilt volutes, gilt edges (slight wear to head and tail of spine, joints and board edges, corners a trifle bumped); folding cloth case.

Provenance: Bound for the dedicatee Henry Somerset (1629-1700), first Duke of Beaufort (Badminton House library shelfmark on front free endleaf).

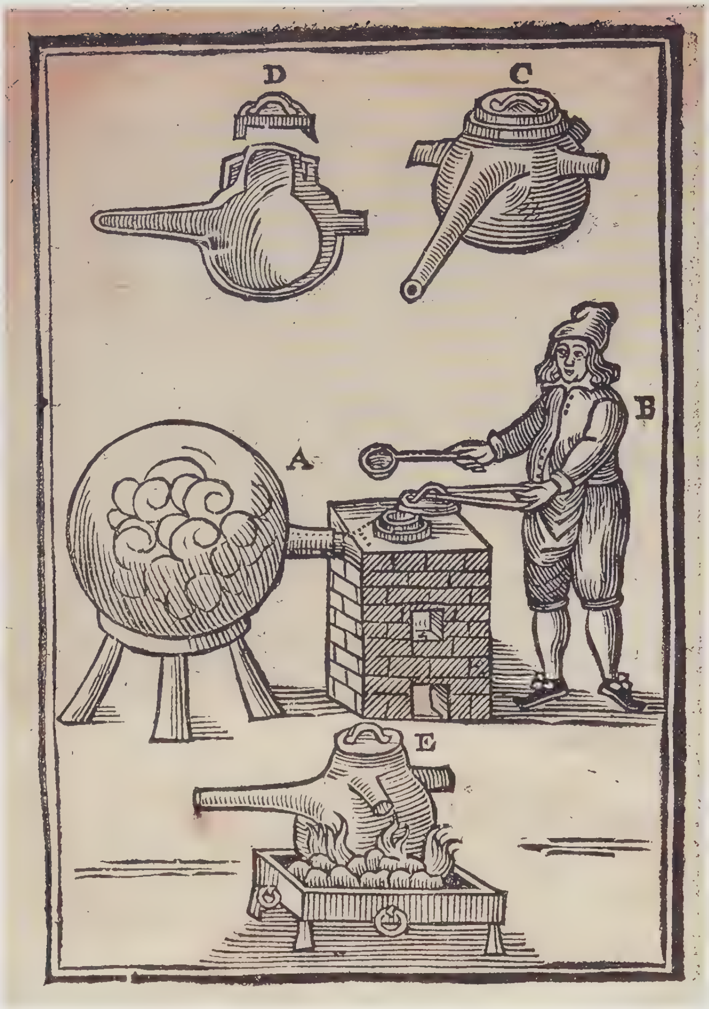
THE DEDICATION COPY of this collection of Glanvill's essays, of which the third reviews some of Robert Boyle's works and praises Harvey's discovery of the circulation of the blood, and the sixth recapitulates the arguments in favor of the existence of witches that Glanvill had set forth in his *Philosophical endeavour towards the defence of the being of witches* (1666). "Glanvill attempted to establish a scientific and philosophical basis for a belief in the supernatural, and is generally considered to be the founder of psychical research" (Norman).

The fine English restoration binding is by the Queens' Binder A, identified by Howard Nixon as the bookseller-binder William Nott on the basis of an entry in Samuel Pepys' diary concerning the Lord Chancellor Clarendon's binder William Nott, from whom Pepys ordered a binding. The latter book was identified by Nixon and the tools were found to be those of the Queens' Binder A, as are those on several books in Clarendon's library (cf. Nixon, *English Restoration Bookbindings*, p. 34). NLM/Krivatsy 4748; Wing G-809; Norman 908.

Estimate: $4,000-6,000



469



(detail, actual size)

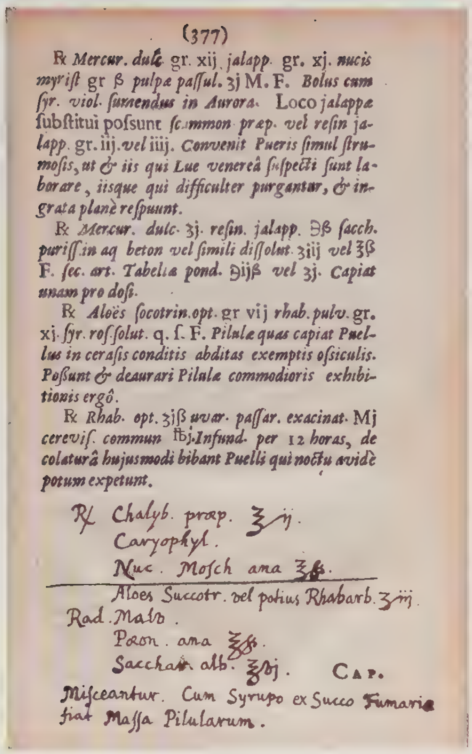
470

GLAUBER, Johann Rudolph (1604-1670). *A Description of new Philosophical Furnaces, or a new Art of Distilling, divided into five parts. Whereunto is added a Description of the Tincture of Gold ... also, the first part of the Mineral Work.* Translated into English by John French. London: Richard Coats for Thomas Williams, 1651-52.

4° (181 x 133 mm). Several woodcuts of furnaces and apparatus in text. (Title soiled with some marginal fraying, a few small repairs patched at edges affecting a few letters [a few in facsimile] and title-border slightly, some browning throughout, old ink stain on some fore-margins.) Modern sheep antique. *Provenance*: Thomas Long (early signature on title); Peter Chadlocke(?) (early signature on title deleted); James Elliot, professor of astronomy, London (ownership inscription on flyleaves and title-page dated 1796); Denis Duveen (bookplate).

FIRST EDITION IN ENGLISH of Glauber's *Furni novi philosophici* (first published in latin in Amsterdam, 1646-49), *De auri tinctura* (1646), and the first part of his *Opus minerale* (1650). Glauber was responsible for many technical advances in the science of chemistry, and made important improvements in distilling furnaces to greatly increase the range of distillable substances. Duveen, p. 252; NLM/Krivatsy 4785; Partington II, pp. 341-61; Wing G-846; Norman 909.

Estimate: $1,000-1,500



(377)

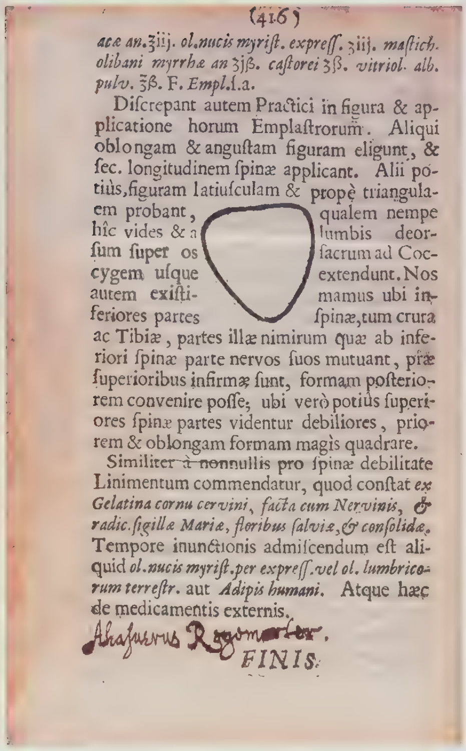
℞ *Mercur. dulc.* gr. xij. *jalapp.* gr. xj. *nucis myriſt* gr ß *pulpæ paſſul.* ʒj M. F. *Bolus cum ſyr. viol. ſumendus in Aurora.* Loco *jalappæ* ſubſtitui poſsunt *ſcammon. præp. vel reſin jalapp.* gr. iij. *vel* iiij. *Convenit Pueris ſimul ſtrumoſis, ut & iis qui Lue venereâ ſuſpecti ſunt laborare, iisque qui difficulter purgantur, & ingrata planè reſpuunt.*

℞ *Mercur. dulc.* ʒj. *reſin. jalapp.* ℈ß *ſacch. puriſſ. in aq. beton vel ſimili diſſolut.* ʒiij *vel* ℥ß F. *ſec. art. Tabellæ pond.* ℈ijß *vel* ʒj. *Capiat unam pro doſi.*

℞ *Aloës ſocotrin. opt.* gr vij *rhab. pulv.* gr. xj. *ſyr. roſ. ſolut.* q. ſ. F. *Pilulæ quas capiat Puellus in ceraſis conditis abditas exemptis oſsiculis. Poßunt & deaurari Pilulæ commodioris exhibitionis ergô.*

℞ *Rhab. opt.* ʒjß *uvar. paſſar. exacinat.* Mj *cereviſ. commun* ℔j. *Infund. per* 12 *horas, de colaturâ hujusmodi bibant Puelli qui noctu avidè potum expetunt.*

℞ Chalyb. præp. ℥ij.
Caryophyl.
Nuc. Moſch ana ℥ß.
Aloes Succotr. vel potius Rhabarb. ℥iij.
Rad. Malv.
Pæon. ana ℥ß.
Sacchar. alb. ℥ij. Cap.
Miſceantur. Cum Syrupo ex Succo Fumariæ fiat Maſſa Pilularum.



(416)

acæ an. ʒiij. *ol. nucis myriſt. expreſſ.* ʒiij. *maſtich. olibani myrrhæ an* ʒjß. *caſtorei* ʒß. *vitriol. alb. pulv.* ℥ß. F. *Empl.* ſ. a.

Diſcrepant autem Practici in figura & applicatione horum Emplaſtrorum. Aliqui oblongam & anguſtam figuram eligunt, & ſec. longitudinem ſpinæ applicant. Alii potiùs, figuram latiuſculam & propè triangulam probant, qualem nempe hîc vides & a lumbis deorſum ſuper os ſacrum ad Coccygem uſque extendunt. Nos autem exiſtimamus ubi inferiores partes ſpinæ, tum crura ac Tibiæ, partes illæ nimirum quæ ab inferiori ſpinæ parte nervos ſuos mutuant, præ ſuperioribus infirmæ ſunt, formam poſteriorem convenire poſſe; ubi verò potiùs ſuperiores ſpinæ partes videntur debiliores, priorem & oblongam formam magìs quadrare.

Similiter ~~à non~~nullis pro ſpinæ debilitate Linimentum commendatur, quod conſtat *ex Gelatina cornu cervini, facta cum Nervinis, & radic. ſigillæ Mariæ, floribus ſalviæ, & conſolidæ.* Tempore inunctionis admiſcendum eſt aliquid *ol. nucis myriſt. per expreſſ. vel ol. lumbricorum terreſtr.* aut *Adipis humani.* Atque hæc de medicamentis externis.

Ahaſuerus Regemorter.

FINIS.

0471

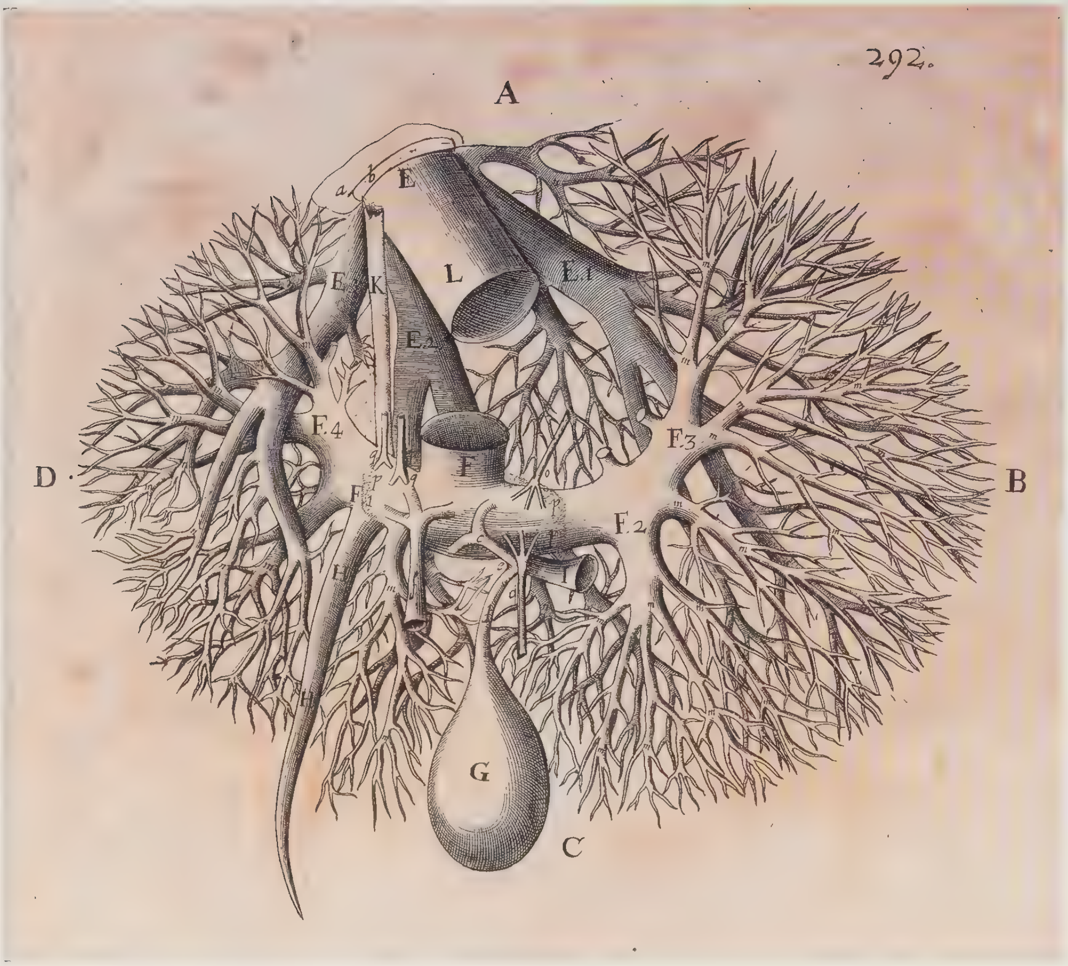
GLISSON, Francis (1597?-1677); George BATE (1608-1669); Ahasuerus REGEMORTER (1614-1650) [*et alia*]. *De rachitide sive morbo puerili, qui vulgò the rickets dicitur.* London: William du Gard for Laurence Sadler and Robert Beaumont, 1650.

8° (167 x 106 mm). Collation: A^8 a^8 B-Z^8 Aa-Dd^8. 224 leaves (A1 blank except for signature). Errata statement on a8v, printed shoulder notes; approximately 15 small woodcut figures or diagrams, woodcut headpiece and initials. (Dampstaining affecting last few leaves, some marginal discoloration, mark on title from deleted inscription, minor worming in gutter margins, rusthole to N3.) Contemporary blind-panelled English calf (unobtrusively rebacked); cloth folding case.

Provenance: Ahasuerus Regemorterus, co-author (signature on last page, ink corrections throughout, most following the printed errata list, a medicinal prescription in his hand in lower margin of p. 377 (Bb6r); James Peiree (later 18th or 19th-century signature on front free endpaper); King's College [Columbia University] Medical School (inkstamp on p. 101).

FIRST EDITION, CO-AUTHOR'S COPY, of the first full clinical description of rickets and the first description of infantile scurvy. In 1645 the Royal College of Physicians assigned to Glisson and his fellow members Bate and Regemorter the task of investigating and publishing a book on rickets, thought to have appeared only recently in England. "The investigation of the essential nature of the disease fell to Glisson, who impressed his co-workers so much that they entrusted him with drafting the entire book, into which their own observations and possibly those of authors like Daniel Whistler were incorporated" (DSB). (Whistler's Leiden 1645 dissertation was the first description of rickets as a definite disease.) The list of contributors on A5v includes the three main authors as well as the physicians R. Wright, T. Sheafe, N. Paget, J. Goddard, and E. Trench, making it "one of the earliest instances of collaborative medical research in England" (Garrison-Morton), but also making it "hard to tell how much of the classic anatomical and clinical descriptions of the disease belongs to Glisson alone. He claimed originality specifically for chapters 3-14. These are concerned mainly with the nature of the disease, which he believed to be a cold and humid distemper..." (DSB). Like Glisson's other works, this one is presented in an archaic, scholastic framework of reasoning. Harvey's new theory is incorporated in the work "as a matter of course" (DSB) in a chapter on regulation of the circulation of the blood, which also deals with the mechanisms of nervous function and the nature of hereditary disease. Garrison-Morton 3729; NLM/Krivatsy 4822; Osler 2757; Waller 3589; Welcome III, p. 126; Wing G-854; Norman 910.

Estimate: $7,000-9,000



472

GLISSON, Francis (1597?-1677). *Anatomia hepatis. Cui praemittantur quaedam ad rem anatomicam universe spectantia.* London: Du Gard for Octavian Pullein, 1654.

8° (172 x 109 mm). Collation: a-c^{8} B-Z^{8} Aa-Gg^{8} Hh^{4}. 260 leaves (a1 blank except for signature). 2 folding engraved plates, 1 engraving in text (p. 255), 10 woodcut illustrations, woodcut head- and tailpieces and initials. (Browning.) Contemproary vellum over thin pasteboard. *Provenance*: unidentified armorial inkstamp on verso of title and Gg5v.

FIRST EDITION of Glisson's classic work on the liver, the most important treatise to date on the physiology of the digestive system, and the first book printed in England to give a detailed account of a single organ based on original research. Based on research carried out a decade earlier, the work "made fundamental contributions to understanding the physiology of the abdominal organs, in that it delineated the structure and function of the liver, and identified and described the fibrous tissue encasing the liver (Glisson's capsule). It also introduced Glisson's important concept of 'irritability,' in which he argued that irritation was the organism's way of recognizing substances to be expelled" (Grolier *Medicine*). "At that time, he thought of irritation as being dependent on the presence of nerves. By 1677, however, natural irritability was a property attributed to almost all living parts of the body including the blood (an idea implicit in Harvey's theory)... Glisson's doctrine of irritability acquired fame because in later years Haller traced the origin of the term back to Glisson" (DSB). In this work Glisson advocated very advanced anatomical techniques, including the use of the microscope and the injection of colored fluids. Garrison-Morton 972; Grolier *Medicine* 29; *Heirs of Hippocrates* 472; NLM/Krivatsy 4818; Wellcome III, p. 126; Wing G-853; Norman 911.

Estimate: $5,000-7,000

ɔ473

GOETHE, Johann Wolfgang von. *Versuch die Metamorphose der Pflanzen zu erklären.* Gotha: Carl Wilhelm Ettinger, 1790.

8° (203 x 129 mm). Contemporary boards, leather spine label (minor rubbing to edges). *Provenance:* Bibliotheque du Prince Louis de Sayn-Wittgenstein (bookplate).

FIRST EDITION, FIRST ISSUE. Goethe's first published testimony of his scientific interests. "With regard both to Linnaeus and Wolff it may be said that they anticipated the morphology of plants, but that to Goethe belongs the credit of establishing it" (Osler). Osler 2767; Pritzel 293; Sparrow *Milestones of Science* 86; Norman 913.

Estimate: $2,000-3,000

ɔ474

GRAAF, Regnier de (1641-1673). *De succi pancreatici natura et usu exercitatio anatomico-medica.* Leiden: Hack, 1664.

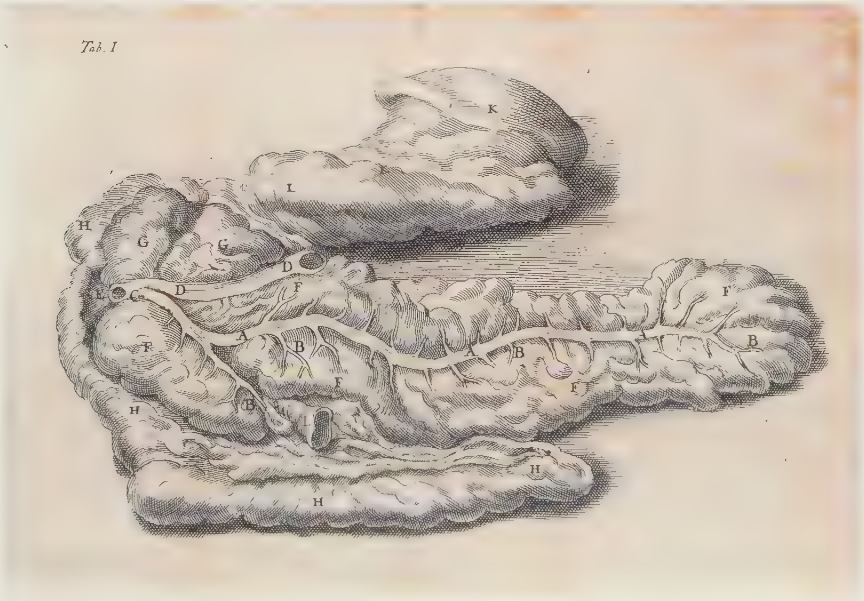
12° (128 x 72 mm). Woodcut title-vignette. 3 folding engraved plates (one torn slightly at fold). (Some minor brown spotting.) Contemporary vellum. *Provenance*: Rudolf Virchow (1821-1902), German pathologist and author of *Die Cellularpathologie*, published in 1858 (bookplate with his famous motto: "omnis cellula a cellula").

VIRCHOW'S COPY OF THE EXCEEDINGLY RARE FIRST EDITION of Graaf's important study on pancreatic secretion. His experiments, performed when he was 22, are among the earliest investigations of the physiology of the pancreas. "He collected the pancreatic juice of dogs by means of artificial pancreatic fistulae, commenting on the small quantitiy of juice secreted and on its alkaline character" (Garrison-Morton). Garrison-Morton 974; Norman 923.

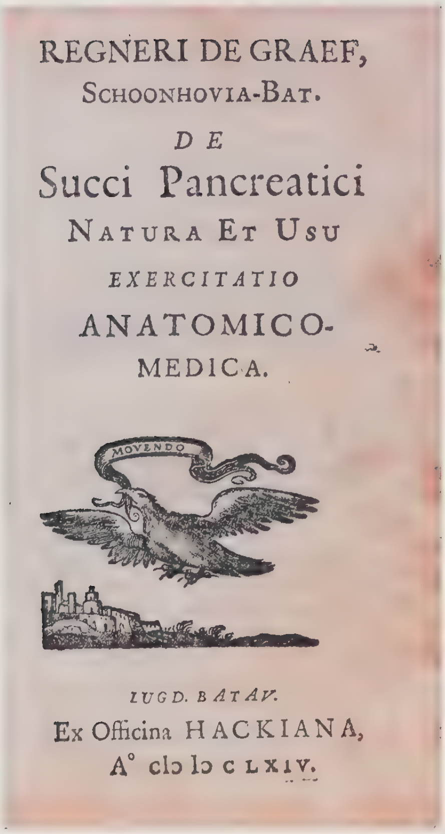
[*Bound with*:]

SENGUERDIUS, Wolferdus (1646-1724). *Tractatus physicus de tarantula. -Oratio inauguralis de usu et dignitate philosophiae*. Leiden: Gaasbeeck, 1668. 12°. Engraved frontispiece. NLM/Krivatsy 10902. — György KOVÁCS, tatai (b. 1645). *Hercules vere cognitus, certus exul, id est epilepsiae vera dignotio, ac ejusdem certa curatio*. Leyden: Arnold Doude, 1670. 12°. (Lacks plate.) NLM/Krivatsy 6489 ("plate wanting"); Wellcome III, p. 411. — Marcello MALPIGHI (1628-1694). *De viscerum structura exercitatio anatomica.* Amsterdam: Peter le Grand, 1669. 12°. NLM/Krivatsy 7333. — Charles DRELINCOURT (1633-1697). *Quaestio medica de partu octimestri vivaci*. Leiden: Felice Lopez de Haro, 1668. 12°. NLM/Krivatsy 3381.

Estimate: $6,000-8,000



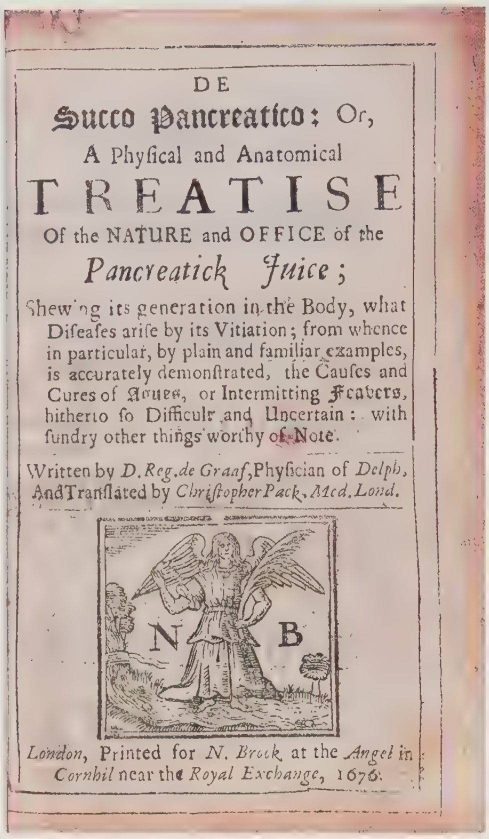
474



REGNERI DE GRAEF,
SCHOONHOVIA-BAT.
DE
Succi Pancreatici
NATURA ET USU
EXERCITATIO
ANATOMICO-
MEDICA.

LUGD. BATAV.
Ex Officina HACKIANA,
A° cIↃ IↃ c LXIV.

474



DE
Succo Pancreatico: Or,
A Phyſical and Anatomical
TREATISE
Of the NATURE and OFFICE of the
Pancreatick Juice;
Shewing its generation in the Body, what Diſeaſes ariſe by its Vitiation; from whence in particular, by plain and familiar examples, is accurately demonſtrated, the Cauſes and Cures of Agues, or Intermitting Feavers, hitherto ſo Difficult and Uncertain: with ſundry other things worthy of Note.

Written by *D. Reg. de Graaf*, Phyſician of *Delph*, And Tranſlated by *Chriſtopher Pack, Med. Lond.*

London, Printed for *N. Brook* at the *Angel* in *Cornhil* near the *Royal Exchange*, 1676.

476

475

GRAAF, Regnier de (1641-1673). *De virorum organis generationi inservientibus, de clysteribus et de usu siphonis in anatomia.* Leiden and Rotterdam: Hack, 1668.

8° (159 x 92 mm). Engraved frontispiece portrait (lacking from this work, but the portrait from *De mulierum organanis generationi* (see below) has been inserted before the title of this work), 11 folding engraved plates (one plate with a short tear, a few minor repairs). (Engraved title and portrait soiled, some marginal soiling.) Contemporary calf (rebacked, corners worn). *Provenance*: early inscription on title-page verso.

FIRST EDITION of "this classical and accurate account of the anatomy of the testicle. It contains also an account of the use of clysters and of experimental fistulae which far predates Claude Bernard and Beaumont" (*Heirs of Hippocrates*). The short treatise at end, *De usu siphonis*, introduced his contribution to anatomic injection—an improved syringe. Cushing G345; Garrison-Morton 1210; *Heirs of Hippocrates* 637; NLM/Krivatsy 4909; Waller 3670; Wellcome III, p. 142; Norman 925.

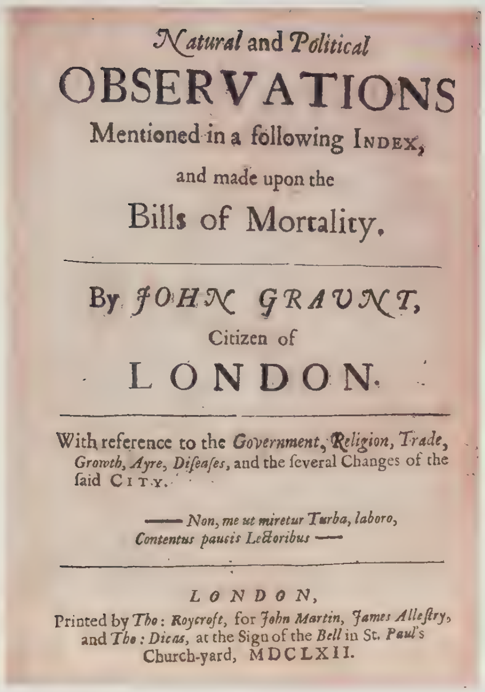
[*Bound with*:]

GRAAF, Regnier de. *De mulierum organis generationi inservientibus tractatus novus.* Leiden: Officina Hackiana, 1672.

8°. Engraved frontispiece (engraved portrait inserted before first work above), 27 engraved plates, including 9 folding (a few with minor flaws or repairs). *Provenance*: some early marginalia.

FIRST EDITION of Graaf's accurate and concrete description of the anatomy and physiology of the female mammalian reproductive organs. "Graaf demonstrated ovulation anatomically, pathologically, and experimentally ... He herein gives the first description of ovarian (Graafian) follicles and the corpus lutem. His was an advanced and accurate understanding of the anatomy of the female genitalia" (*Heirs of Hippocrates*). Cushing G344; Garrison-Morton 1209; *Heirs of Hippocrates* 638; NLM/Krivatsy 4908; Waller 3669; Wellcome III, p. 142; Norman 926.

Estimate: $1,500-2,500



Natural and *Political*
OBSERVATIONS
Mentioned in a following INDEX,
and made upon the
Bills of Mortality.

By *JOHN GRAUNT*,
Citizen of
LONDON.

With reference to the *Government*, *Religion*, *Trade*, *Growth*, *Ayre*, *Diſeaſes*, and the ſeveral Changes of the ſaid CITY.

—— Non, me ut miretur Turba, laboro,
Contentus paucis Lectoribus ——

LONDON,
Printed by *Tho: Roycroft*, for *John Martin*, *James Alleſtry*,
and *Tho: Dicas*, at the Sign of the *Bell* in St. *Paul's*
Church-yard, MDCLXII.

477

○476

GRAAF, Regnier de (1641-1673). *De succo pancreatico: Or, a Physical and Anatomical Treatise of the Nature and Office of the Pancreatick Juice*. Translated by Christopher Packe (fl. 1670-1711). London: for N. Brook, 1676.

8° (166 x 104 mm). Woodcut publisher's device on title, 3 engraved plates (some darkening and fraying, one defective). (Some marginal browning and soiling.) Modern calf antique.

FIRST EDITION IN ENGLISH. Translated from Graaf's second edition (1671) by Christopher Packe, "a quack physician whose several publications were chiefly designed to advertise his own nostrums" (Norman). NLM/Krivatsy 4913; Wing G-1463; Norman 924.

Estimate: $1,500-2,500

○477

GRAUNT, John. (1620-1674). *Natural and political observations mentioned in a following index and made upon the bills of mortality...with reference to the government, religion, trade, growth, ayre, diseases, and the several changes of the said city.* London: Tho: Roycroft, for John Martin, James Allestry, and Tho: Dicas, 1662.

4° (180 x 131mm). Woodcut headpiece, folding "Table of Casualties," f° (395 x 323mm), table of "Number of burials and christenings in the seven parishes [1636-1659]" cut in two and bound side-by-side (left-hand edge of first table slightly shaved, clean tear repaired without loss; both edges of second table shaved with loss of a letter or two in each line, that plate apparently cut down with loss of 4 lines [statistics for 1647 and 1648]). Modern red morocco, gilt-lettered spine, by Sangorski and Sutcliffe.

VERY RARE FIRST EDITION OF THE FOUNDATION OF DEMOGRAPHICS AND MEDICAL STATISTICS. Since the sixteenth century the parishes of London had compiled weekly Bills of Mortality, recording births and baptisms, and the age, sex, parish and apparent cause of death of all who died within the metropolis. Graunt, subjecting these records to careful study, created statistical tables and drew interesting deductions regarding demographics, epidemiology and social patterns. "He was the first to recognize the importance of vital statistics and the need for reducing them to order, which he found to be possible by mathematical calculation, leading to important conclusions on the social and economic conditions of the people....The application of critical scientific methods to medical and vital statistics, which underlies so much of modern government and ecomomics, can be traced back to John Graunt's remarkable book" (PMM). NLM/Krivatsy 4951; Wing G-1599; Wellcome III, p.150; Norman 933.

Estimate: $10,000-15,000

478

[GREATRAKES, Valentine (1629-1683)]. STUBBE, Henry (1632-1676). *The miraculous conformist; or an account of severall marvailous cures performed by the stroking of hands of Mr Valentine Greatarick; with a physicall discourse thereupon, in a letter to the Honourable Robert Boyle Esq*. Oxford: H. Hall for Richard Davis, 1666.

4° (191 x 140 mm). Engraved frontispiece showing Greatrakes "stroking" a boy, by William Faithorne (1616-1691) (some edges uncut; minor foxing to title-page, and some browning to text throughout). 19th-century russia gilt, edges gilt (upper cover detached). FIRST EDITION and the first scientific account, by a doctor and with corroboration from others, of healing by "laying on of hands." Stubbe, a physician from Stratford-on-Avon described the gift of Valentine Greatrakes, a former county magistrate of Ireland, of healing by stroking scrofula, ague and other diseases. Greatrakes had begun practicing his cure some time after 1662, with some success. His fame spread to England, and in 1665 he travelled there to treat Viscountess Conway. He unsuccessfully tried to show his ability to the King at Whitehall that same year. NLM/Krivatsy 11512; Wing S-6062; Norman 2031.

[*Bound after*:]

[LLOYD, David] (1597-1663)]. *Wonders no miracles; or, Mr. Valentine Greatrates gift of healing examined, upon occasion of a sad effect of his stroking, March 7 1665, at one Mr Cresses house in Charter-House-Yard*. London: Samuel Speed, 1666. 4° (191 x 140 mm). (Some browning to text throughout). FIRST EDITION of this anonymous reply to Stubbe's praise *Wonders no miracles* by David Lloyd, chaplain to the Bishop of St Asaph, who criticised Greatrake's character and his supporters. NLM/Krivatsy 7068; Wing L-2649; Wellcome III,p.532; Norman 1378.

[*Bound with*:]

GREATRAKES, Valentine. *A brief account of Mr. Valentine Greatraks, and divers of the strange cures by him lately performed*. London: J. Starkey, 1666. 4° (191 x 140 mm). (Title-page with some foxing; occasional foxing and light browning to text). FIRST EDITION of Greatrake's own response to Lloyd's attack, in the form of a letter addressed to Robert Boyle and including 53 testimonials from Boyle, the Countess of Devonshire, and others in his defence. Garrison-Morton 4992; *Heirs of Hippocrates* 577; NLM/Krivatsy 4974; Osler 2824; Wellcome III, p.159; Wing G-1789; Norman 940.

When 19th-century practitioners of mesmerism thought about a name for their field they considered naming it after Valentine Greatrakes, whose book on laying-on-of-hands for healing psychosomatic illnesses was the first to document the use of suggestion (now understood as hypnosis). He was a sole practitioner who understood what kind of cases he could or could not help, and may not have charged for his services (in great contrast to the entrepreneurial Mesmer). Students of mesmerism today recognize that Greatrakes and Mesmer were employing related methods of treatment, but in very different ways. See Mesmer and mesmerism lots 668-673.

Estimate: $1,000-1,500

479

GREGORY, James (1638-1675). *Optica Promota, seu abdita radiorum reflexorum & refractorum mysteria, geometrice enucleata.* London: J. Hayes for S. Thomson, 1663.

4° (184 x 137 mm). Numerous woodcut diagrams. (Some minor browning to text.) Contemporary mottled calf, spine gilt.

Provenance: Pierre Varignon (1654-1722), mathematician and physicist who played an active role in the initial development of the principle of the composition of forces (see DSB); "ex dono amici de V." (early inscription on title); late 17th-century French notations on front pastedown mentions Gregory's telescope; C. Filippo Linati (bookplate).

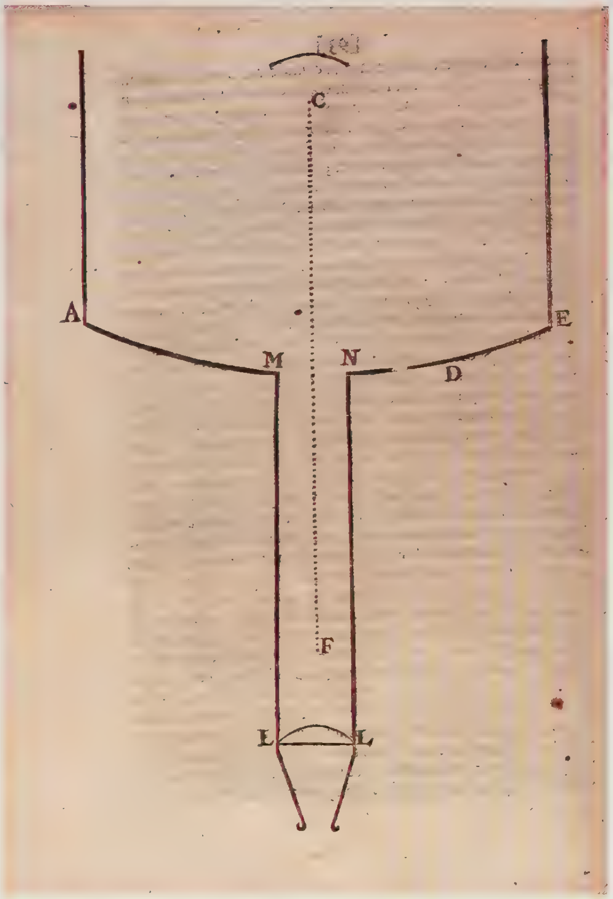
FIRST EDITION of Gregory's contribution to the development of the telescope. In this work "Gregory explained how the deficiencies in the conventional pure reflectors and refractors stimulated him to design a compound 'catadioptrical' telescope, in which a large paraboloidal concave mirror collected the light and reflected it to a small ellipsoidal concave, which in turn formed the final image in the center of the main speculum" (Norman). Wing G-1912; Norman 942.

[*Bound with*:]

WALLIS, John (1616-1703). *Tractatus duo. Prior, de cycloide et corporibus inde genitis. Posterior, epistolaris; in qua agitur, de cissoide, et corporibus inde genitis: et de curvarum.* Oxford: Typis Academicis Lichfieldianis, 1659.

4°. 3 folding engraved plates. FIRST EDITION of Wallis's treatises on the cycloid and cissoid arcs inspired by a competition held by Pascal in 1658, asking for quadratures, cubatures and centers of gravity of certain figures inscribed by cycloidal arcs. Wing W-612; Norman 2180.

Estimate: $3,000-4,000



479

480

GREW, Nehemiah (1641-1712). *The Anatomy of Vegetables Begun. With a general account of Vegetation Founded thereon.* London: for Spencer Hickman, 1672.

8° (160 x 92 mm). 3 folding engraved plates. Contemporary sheep (joints cracked, head of spine worn). *Provenance*: High Legh Library (bookplate); E.N. da C. Andrade (bookplate).

FIRST EDITION of Grew's first book, which contains his accurate observations of the structures of wood, bark and roots. "His most important contribution to botany was his belief that the flower contains the sexual organ of a plant. He distinguished the calyx, stamens and pistils, and that the anthers scatter pollen" (Dibner). His further observations were published in *The Anatomy of Plants* (see lot 482). In *The Anatomy of Vegetables* Grew also introduced the term "parenchyma." Dibner *Heralds* 21; Henrey 163 and pp. 135-138; NLM/Krivatsy 4987; Pritzel 3554; Wellcome III, p.164; Wing G-1946; Norman 944.

Estimate: $1,000-1,500

481

GREW, Nehemiah (1641-1712). *Musaeum regalis societatis. Or a Catalogue & Description of the Natural and Artificial Rarities belonging to the Royal Society and preserved at Gresham Colledge … whereunto is subjoyned the Comparative Anatomy of Stomachs and Guts*. London: W. Rawlins for the author, 1681.

2° (313 x 194 mm). Engraved portrait of Sir Daniel Colwall, founder of the Royal Society, 31 engraved plates, including one folding. Contemporary English mottled calf (upper joint cracked, some chipping to joints and spine ends). Internally very fine.

FIRST EDITION. As secretary to the Royal Society, Grew compiled this illustrated catalogue of its museum, housed then at Gresham College. "Published with the catalogue is Grew's study of the stomach organs, which is the first zoological book to have the term 'comparative anatomy' on the title-page, and also the first attempt to deal with one system of organs only by the comparative method" (Garrison-Morton). Cole, *Comparative anatomy*, pp. 245-51; Garrison-Morton 297; Wellcome III, p.164; Wing G-1952; Norman 945.

[*With*:]

GREW, Nehemiah. *Cosmologia Sacra: or a discourse of the Universe as it is the Creature and Kingdom of God*. London: for W. Rogers, S. Smith, and B. Walford, 1701. 2° (316 x 191 mm). Title-page printed in red and black. Engraved frontispiece portrait by R. White. Contemporary English panelled calf (joints cracked, worn and rubbed). FIRST EDITION of Grew's final work. The second book includes several chapters on psychological phenomena. Hunter-Macalpine, pp. 285-87; Welcome III, p.164; Norman 947.

(2)

Estimate: $1,000-1,500

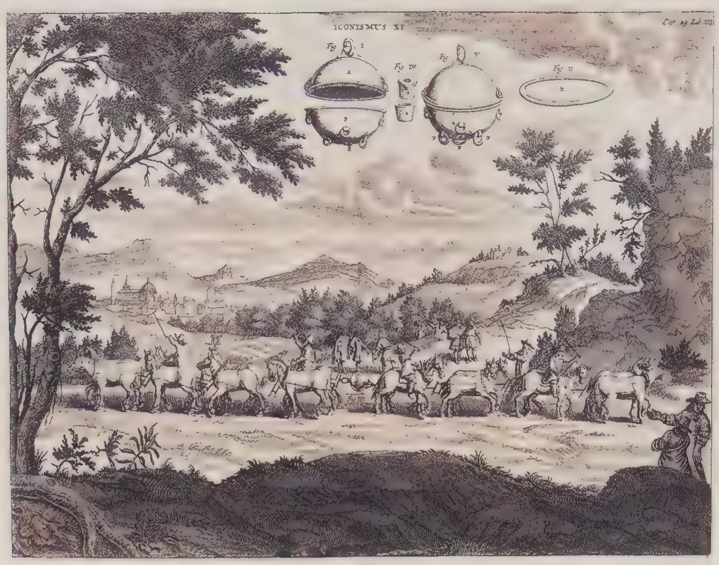
482

GREW, Nehemiah (1641-1712). *The Anatomy of Plants. With an Idea of a Philosophical History of Plants*. London: W. Rawlins for the Author, 1682.

2° (363 x 232 mm). 83 engraved plates, some double-page (some pale mostly marginal dampstains to plates at end, one double-page plate stained at fold), numerous 7- and 9-line woodcut initials hand-colored in yellow (probably in the 18th-century). Contemporary English calf, panelled in gilt (rebacked, covers worn and with corners repaired). *Provenance*: John Fetham (gift inscription from Richard Northcote of Honiton, Devon dated 1787 on the front free endpaper). Feltham has added a considerable amount of his own botanical notes and observations throughout: on a large sheet mounted on the front pastedown, some margins, six plate versos (with illustrations in black-and-white) and on some inserted leaves. In addition he has added two hand-drawn "plates" at end (numbered "Table 85" and "Table 86," both signed and dated 1786).

RARE LARGE-PAPER ISSUE of the First Complete Edition of "Grew's chief work which gained him the reputation of being one of the most distinguished scientists of the 17th century" (Hunt). This revised collected edition of three earlier treatises represents the first textbook on the subject. It includes *The anatomy of vegetables begun* (see lot 480), *An idea of a phytological history propounded* (first published 1673), and *The comparative anatomy of trunks* (1675). Along with Malphighi, Grew is considered the founder of plant anatomy, and both were the first to investigate internal plant anatomy with the aid of the microscope and demonstrate that plants have a characteristic ordered inner structure that could be classified. This copy is printed on paper watermarked with the Strasbourg lily; Norman notes ordinary copies were printed on foolscap. Henrey 162; Grolier/Horblit 43b; Hunt 362; Nissen *BBI* 758; NLM/Krivatsy 4986; Wellcome III, p.164; Pritzel 3557; Wing G-1945; Norman 946.

Estimate: $1,500-2,500



o483

GUERICKE, Otto von (1602-1686). *Experimenta nova (ut vocantur) Magdeburgica, de vacuo spatio.* Amsterdam: Johannes Jansson à Waesberge, 1672.

2° (310 x 192 mm). Additional engraved title, engraved portrait, 7 full-page engraved plates (one repeated), 2 double-page engraved plates and 24 engraved diagrams and figures in text. Contemporary blindstamped vellum; morocco folding case.

Provenance: Sandbergs (booksellers label on front paste-down).

FIRST EDITION. Although diplomacy (during the Thirty Year War) and the position of Mayor of Magdeburg consumed much of Guericke's time he devoted his brief leisure to scientific experiments. In the *Experimenta nova* Guericke describes his invention of the air-pump and the famous Magdeburg experiment of 1657, in which two teams of horses were employed in an unsuccessful attempt to separate two copper hemispheres from which the air had been withdrawn. "A book of prime importance in electrical discovery, air-pressure and the vacuum pump" (Dibner). A FINE COPY. Dibner *Heralds of Science* 55; Grolier/Horblit 44; Sparrow *Milestones of Science* 90; NLM/Krivatsy 5074; Wellcome III, p.175; Wheeler Gift 170; Norman 952.

Estimate: $7,000-10,000

ɔ484

GUETTARD, Jean Étienne (1715-1786). Autograph manuscript journal of his and Lavoisier's geological tour of Alsace, Lorraine, and Franche-Comté, [1767].

Large 8° (217 x 140 mm). $1\text{-}2^{14}$ $3\text{-}8^{12}$; 100 leaves (first and last leaves used as pastedowns). 98 text leaves, consisting of 2 flyleaves, 61 partially foliated leaves, 2 blank leaves, 32 partially foliated leaves written from the end, and 1 flyleaf. (A few small inkstains, corner of one leaf torn catching a letter or two.) Original wallet-binding of green vellum over thin pasteboard with fore-edge flap extending from the lower cover, leather wrap-around thong attached to the flap; folding case.

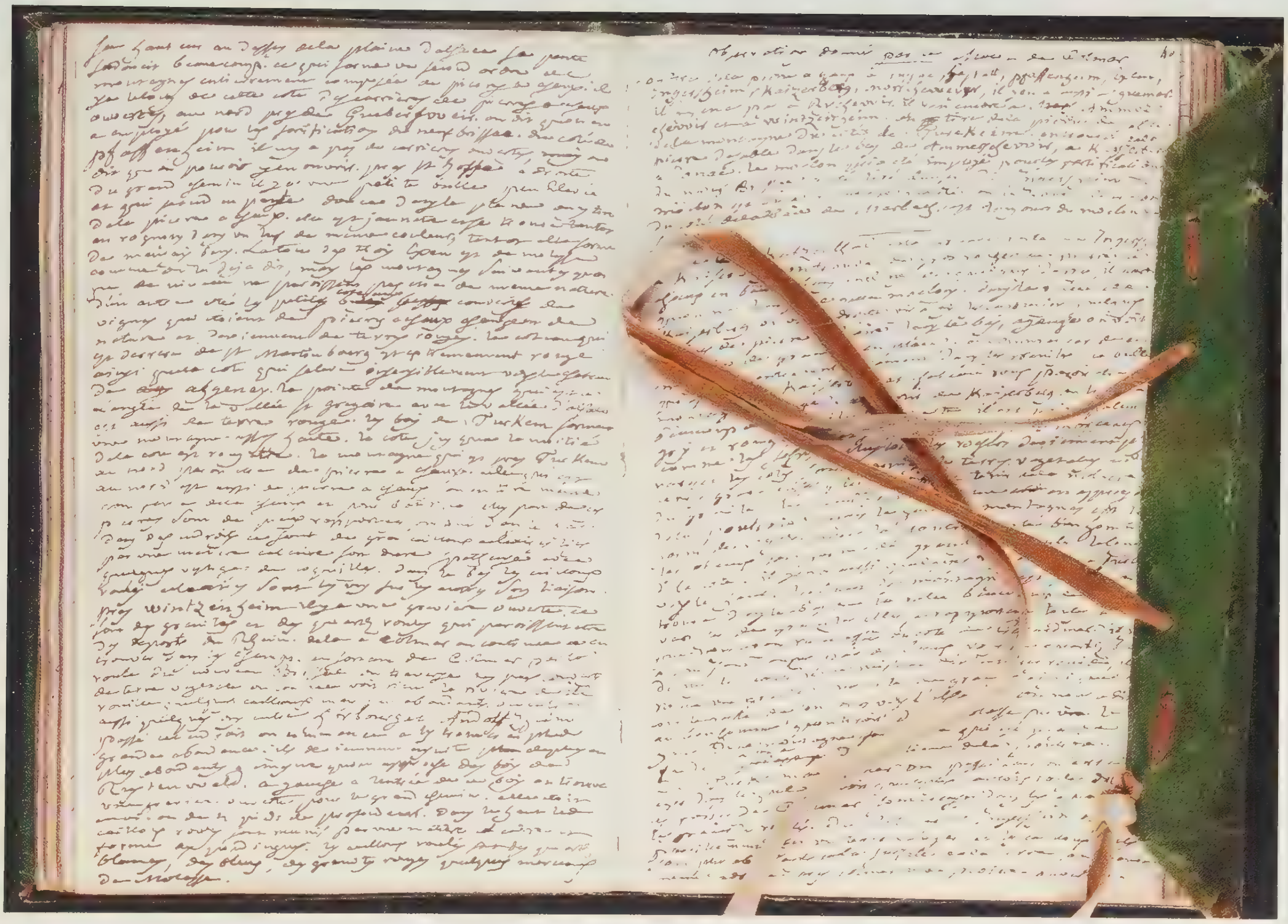
Provenance: ANTOINE LAURENT LAVOISIER (1743-1794) [see below]; Denis Ian Duveen, Lavoisier's bibliographer (bookplate and pencil inscription on fol. 1r).

Contents: Fol. 1r blank except for later owner's inscription; 1v list of expenses, mostly incurred for drawings and views executed by M. Bidermann, "dessinateur de Tzann"; 2r list of names of people to visit, 2v blank; 3-63 (foliated 1-58 [59-61]) the journal; 64-65 blank; 66-97 (written from the other direction and foliated 1-13 [14-32]) record of mineralogical specimens sent to Henri Bertin, Minister and Secretary of State, consisting of 20 shipments separately numbered but undated, the items on the first two pages with Guettard's chemical symbols (earlier versions of those used in the *Atlas minéralogique de la France*; 98r blank, 98v 5-line miscellaneous note.

Guettard, a gifted geologist and the discoverer of the volcanic origin of the Auvergne massif, was Lavoisier's mentor in the field of geology. One of the earliest geological cartographers, Guettard had presented his first "mineralogical map" of France and England to the Académie des Sciences in 1743, which showed the locations of rock formations and mineral deposits. In 1766 Henri Bertin, Minister and Secretary of State in charge of mining, commissioned Guettard and the 24-year old Lavoisier to prepare a complete geological survey of France. The two made several short field trips together before setting off on their most extensive tour, through the Vosges mountains and parts of Alsace and Lorraine. This journal, of which the first entry is dated 14 June [1767], is Guettard's scientific diary of that journey. Lavoisier's own journal of the trip is preserved in the Duveen Lavoisier Collection at Cornell University. "Accompanied by Lavoisier's servant, Lavoisier and Guettard traveled on horseback for four months, often under trying, if not actually hazardous, conditions. The letters Lavoisier exchanged with his father and his adoring aunt during this long absence from Paris have largely survived... Lavoisier's special contribution to this venture, as to the other expeditions, was to add a quantitative character to their observations. He used the barometer systematically to measure the heights of mountains and the elevations and inclinations of strata... and he collected samples of mineral and spring waters to be analyzed in the field or shipped back to Paris" (DSB). The data collected by Guettard and Lavoisier was used for their unfinished *Atlas et description minéralogiques de la France*, of which 31 maps were published by Antoine Monnet in 1780. The Norman collection includes an early collection of the first 16 maps (see lot 602).

Presumably after Guettard's death, the journal passed into Lavoisier's possession: the Duveen collection incldues a faird copy of it in the chemist's hand, which he presumably intended to use for a published account of the journey. Duveen states that he purchased the manuscript from one Mme. de Chauzelles(?) in 1952. Norman 953.

Estimate: $8,000-12,000



485

HAHNEMANN, Samuel Christian Friedrich (1755-1843). *Organon der rationellen Heilkunde.* Dresden: Arnold, 1810.

8° (196 x 117 mm). Modern sheep. *Provenance:* Neubern (signature on title).

FIRST EDITION. "Hahnemann, the founder of homeopathy, embodied his theories in the *Organon*. The minute doses set down by him did much to correct the evils of the polypharmacy of his time, in which overdosage was pervasive. He professed to base medicine on a knowledge of symptoms, regarding investigation of causes of symptoms as useless; he thus rejected all the lessons of pathology and morbid anatomy. There are several English translations, the first of which appeared in 1833" (Garrison-Morton). Garrison-Morton 1966; PMM 256; Waller 3960; Wellcome III, p.191; Norman 964.

Estimate: $3,000-4,000

486

HALE, Sir Matthew (1609-1676). *The primitive origination of mankind, considered and examined according to the light of nature.* London: William Godbid for William Shrowsbury, 1677. 2° (313 x 195 mm). Engraved portrait frontispiece, by F.H. van Houe (light staining to the edges of some pages; occasional slight foxing). Contemporary calf (rebacked, preserving original red leather label). *Provenance*: ownership inscription of Thomas Scott of Norwich on front free endpaper, with notes in the same hand; ownership inscription of Robert Ives on titlepage. FIRST EDITION. An attack on theories of polygenesis, and a defence of the Mosaic theory of the single origin of the human race. Wing H-258; Norman 965. — HALE. *A short treatise touching sheriffs accompts ... To which is added, a tryal of witches at the assizes held at Bury St. Edmonds ... on the tenth day of March, 1664.* London: William Shrowsbery, 1683. 8° (162 x 104 mm). (Headings just shaved on a few leaves). Modern green morocco, gilt-lettered spine. FIRST EDITION. Hale, chief justice of the King's Bench under Charles II, was convinced of the existence of witchcraft, and encouraged the persecution of witches. He presided over a notorious witch trial at Bury St. Edmunds in 1664, which achieved prosecution by allowing hearsay evidence and testimony from involved parties. Thomas Browne, author of *Pseudoxia epidemica*, an attack on superstitous beliefs, testified as an expert witness at the trial, the earliest known example of a doctor testifying as an expert on a psychiatric matter. His testimony was later cited in the Salem witch trials. The *Tryal* has a separate title page dated 1682. Wing H-260; Norman 966. — HALE. *A collection of modern relations of matter of fact, concerning witches and witchcraft upon the persons of people.* London: John Harris, 1693. 4° (198 x 155 mm). Later portrait of Matthew Hopkins, the celebrated witch-finder, tipped onto verso of front free endpaper (titlepage browned and spotted; some browning and foxing throughout text). Contemporary gilt-panelled calf (rebacked). FIRST EDITION. Wellcome III, p.193; Wing H-224; Norman 967.

(3)

Estimate: $800-1,000

487

HALES, Stephen (1677-1761). *Vegatable staticks: or, an Account of some Statical Experiments on the Sap in Vegetables: Being an Essay towards a Natural History of Vegetation.* London: for W. and J. Innys and T. Woodward, 1727 — *Statical Essays: containing haemastaticks; or, an Account of some Hydraulick and Hydrostatical Experiments made on the Blood and Blood-Vessels of Animals.* London: for W. Innys and R. Manby, and T. Woodward, 1733.

2 volumes, 8° (192 x 120 mm) [Vol. 1], (198 x 126) [Vol. 2]. 19 engraved plates by S. Gribelin [Vol. 1]. Contemporary English panelled calf, spines gilt (panelling varies slightly on covers of

volumes, but spines and lettering pieces match; minor wear to extremities, front joint starting on first volume); cloth folding case. *Provenance*: early owner's initials ("JLG"?) and shelf-mark neatly written on title-page of each volume.

FIRST EDITIONS OF THESE IMPORTANT WORKS ON PLANT NUTRITION AND EXPERIMENTAL PHYSIOLOGY. Hales applied his training in biology and mathematics (including physics) to make important scientific investigations presented in these separately published volumes. The first volume, *Vegetable staticks*, Hales describes his investigations of plant physiology, including the movement of water in plants and determining the three factors of water movement: root suction, root pressure and leaf suction. He also established that plants lose water continuously during transpiration through leaves. His quantitative measurements of these phenomena enabled him to show the rate of transpiration varied with temperature. Hales established that plants do not have true circulation system, and developed techniques of measuring the varying growth rates in different plant structures.

The second volume, or *Haemastaticks*, "contains the studies on blood pressure which make Hales one of the founders of modern experimental physiology. The application of the principle of the pressure-gauge or manometer enabled him to measure blood pressure during the contraction of the heart. He computed the circulation rate and estimated the velocity of the blood in the veins, arteries and capillary vessels and by showing that the capillary vessels are liable to constriction and dilation he made an important contribution both to the study of physiology and the practice of the physician of today ... Hales's work marked the greatest advance in the physiology of the circulation between Harvey and the introduction of the mercury manometer and other instruments for the measurement of blood pressure by J.L.M. Poiseuille in 1828" (PMM).

A VERY FINE SET, INCLUDING BOTH FIRST EDITIONS. Dibner *Heralds of Science* 26; Garrison-Morton 765 (*Haemastaticks*); Grolier/Horblit 45a and 45b; Grolier *Medicine* 41; *Heirs of Hippocrates* 784; Henrey 777-78; NLM/Blake, p.194; Osler 1081; PMM 189; Waller 11527; Wellcome III, p.194; Norman 970.

(2)

Estimate: $2,500-3,500

)488

HALL, John (1575-1635). *Select observations on English Bodies: Or, Cures both Empericall and Historicall, performed upon very eminent Persons in desperate Diseases.* Translated from Latin into English by James Cooke. London: John Sherley, 1657.

12° (139 x 72 mm). (Small repair on title affecting a few letters, some marginal repairs on preliminary leaves and final leaf, some printed borders redrawn at repair, lacking A1 [longitudinal label? or blank?].) Modern calf antique. *Provenance*: Myron Prinzmetal (bookplate).

FIRST EDITION. "Hall was Shakespeare's son-in-law, having married Shakespeare's elder daughter Susanna in 1607; his *Select observations* is interesting primarily as a piece of medical Shakespeareana" (Norman). RARE, not in Garrison-Morton, Wellcome, Waller or Osler. NLM/Krivatsy 5217 (imperfect, lacking longitudinal label [A1?]); Wing H-356; Norman 971.

Estimate: $800-1,200

)489

HALLER, Albrecht von (1708-1777). *Iconum anatomicarum quibus praecipuae partes corporis humani delineatae continentur.* Göttingen: Abram Vandenhoeck (fascicules I-IV), Widow of Abram Vandenhoeck (fascicules V-VIII), 1743-1756.

8 parts in one volume, 2° (469 x 289 mm). 47 engraved plates, some folding (light browning to text, a few plates torn.) Contemporary calf (corners repaired, rebacked, with old spine label laid down).

FIRST EDITION. "The book was published in eight fascicules beginning in 1743 and ending in 1756. Although nearly ten different engravers prepared plates for the book, the plates are all of high quality and are clear, artistic, and exact renditions of their subject. The plates depict nearly all the arteries of the human body as well as the various organs. There are special plates of the heart, omentum, base of the skull, diaphragm, uterus, and spinal cord" (*Heirs of Hippocrates*). Choulant-Frank, pp. 289-90 ("this work will always remain the main source of information for accurate anatomic studies, especially of the arteries and the viscera"); Garrison-Morton 397; Osler 1153; Waller 4011; Wellcome III, p.198; Norman 974.

Estimate: $3,000-4,000

)490

HALLER, Albrecht von (1708-1777). *Elementa physiologiae corporis humani.* Lausanne: Bousquet (Vol. I), D'Arnay (Vol. II), Grasset (Vols. III-V), Berne: Typographical Society (Vols. VI-VII), Leiden: Haak (Vol. VIII), 1757-1766.

8 volumes, 4° (263 x 215 mm., uncut, except Vol. VIII and unopened vols. IV-VI). Engraved portrait frontispiece and 5 (of 6) engraved plates. Contemporary half sheep and boards (light wear to some spines).

FIRST EDITION, except volume IV. "Haller synthesized the whole physiological knowledge of his time. In the above, probably his greatest work, Haller included some anatomical descriptions which were most valuable" (Garrison-Morton). Brunet III:23; Garrison-Morton 588; *Heirs of Hippocrates* 886; Osler 1148; Waller 4007; Wellcome III, p.199; Norman 975.

[*With*:]

Auctarium ad Alberti Halleri elementa physiologica corporis humani. Fasciculus primus [-quarti pars prima]. Lausanne: Jules Henri Pott, 1782. 4° (240 x 191 mm). Contemporary mottled sheep. A supplement to Haller's *Elementa physiologica.* Wellcome III, p.199; Norman 976.

[*With*:]

Anatomical Description of the Arteries of the Human Body. Boston: Thomas B. Wait, 1813. 8° (214 x 125 mm). 15 hand-colored woodcut plates by Josiah Foster Flagg after the illustrations in Haller's *Icones anatomicae.* Contemporary sheep (worn). First American edition. Norman 977. (10)

Estimate: $1,000-1,500

ASTRONOMIÆ COMETICÆ
SYNOPSIS,

Autore EDMUNDO HALLEIO
Apud OXONIENSES
GEOMETRIÆ PROFESSORE SAVILIANO.

VETERES *Ægyptii* & *Chaldæi*, ſiqua fides *Diodoro Siculo*, longa obſervationum ſerie inſtructi, Cometarum ἐπιτολὰς prænuntiare valuerunt. Cum autem iiſdem artibus etiam Terræ-motus ac tempeſtates prævidiſſe dicantur, extra dubium eſt Aſtrologiæ potius calculo fatidico, quam Aſtronomicis motuum Theoriis eorum de his rebus ſcientiam referendam eſſe. Ac vix alia à Græcis utriuſque populi victoribus reperta eſt apud eos doctrina; adeo ut eam, quam nunc eouſque proveximus Aſtronomiam, Græcis ipſis, præſertim magno *Hipparcho*, uti inventoribus, acceptam debeamus. Apud hos vero *Ariſtotelis* ſententia, qui Cometas nihil aliud eſſe voluit quam Vapores ſublunares vel etiam Meteora aerea, tantum effecit, ut hæc Aſtronomicæ ſcientiæ pars longe ſubtiliſſima, omnino neglecta manſerit, cum nemini operæ pretium viſum fuerit, vagas & incertas fluitantium in æthere vaporum ſemitas adnotare ſcriptiſque mandare; unde factum ut ab illis nihil certi de motu Cometarum ad nos tranſmiſſum reperietur.

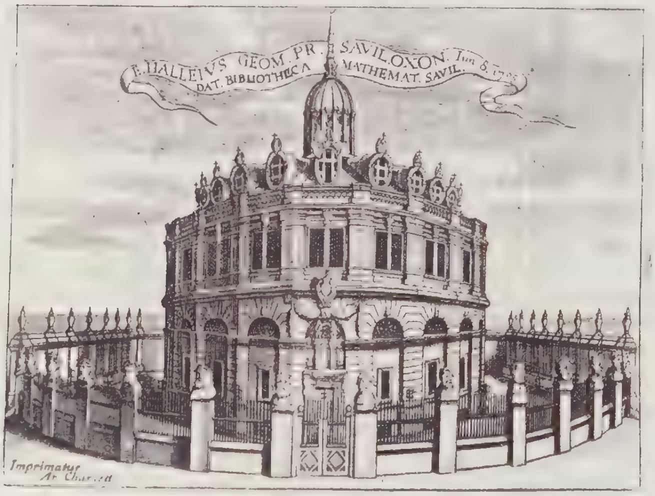
Seneca autem Philoſophus, perpenſis duorum inſignium ſui temporis Cometarum Phænomenis, non dubitavit iis loca inter corpora cœleſtia aſſignare, Sydera eſſe cum mundo duratura exiſtimans, quanquam Motus eorum legibus nondum compertis regi fateatur. Tandemque Vaticinio non irrito promittit aliquando futura ſecula, quibus hæc tam occulta *dies extraheret ac longioris ævi diligentia*: quibuſque admirationi foret hæc *Veteres* neſcire potuiſſe; poſtquam *Demonſtraverit aliquis* Naturæ Interpres *in quibus Cœli partibus Cometæ errent, quanti, qualeſque ſint.* Ab hac autem *Senecæ* ſententia in diverſas partes abiit pene omnis Aſtronomorum Cohors; ac ipſe *Seneca*, neque Phænomena Motus quibus opinionem hanc tueretur, neque tempora adſcribere dignatus eſt, quæ poſteris ad hæc definienda uſui forent. Ac evolutis plurimis Cometarum Hiſtoriis, nihil omnino invenio quod huic negotio inſervire poſſit, ante annum à *Chriſto* nato 1337. quo *Nicephorus Gregoras* Hiſtoricus & Aſtronomus *Conſtantinopolitanus* nobis Cometæ ſemitam inter fixas ſatis accurate deſcripſit: tempora autem nimis laxe conſignavit. ita ut non niſi quod abhinc quadringentis pene Annis apparuerit, lubricus & incertus hic Cometa Catalogo quem damus inſeri mereatur. Dein Cometa anni 1472 omnium velociſſimus ac terris proximus *Regiomontanum* habuit obſervatorem. Hic magnitudine ac Comâ terribilis, unius diei ſpatio 40 gradus ſub circulo Cœli maximo emenſus eſt, ac omnium primus eſt de quo obſervata idonea ad nos pervenere. Quotquot autem Cometas conſiderarunt, uſque ad tempora *Tychonis Brahe* magni illius Aſtronomiæ reſtauratoris, eos ſublunares eſſe autumârunt, adeoque parvi penderunt, utpote pro Vaporibus habitos.

Anno autem 1577, *Tychone* jam ſtudio aſtrorum ſerio incumbente, comparatiſque Machinis ingentibus pro dimetiendis cœli arcubus majori cum cura & certitudine quam Veteribus ſperare fas erat: Emerſit Cometa ſatis conſpicuus, cui obſervando ſtrenue ſeſe accinxit *Tycho*: multiſque & fidis experimentis deprehendit, nulli quæ ſentiretur Parallaxi diurnæ obnoxium fuiſſe, adeoque non tantum non fuiſſe Vaporem aereum, ſed & etiam multo ſuperiorem extitiſſe Lunâ: immo nihil obſtabat quin inter ipſos Planetas collocaretur; fruſtra interim contra obſtrepentibus Scholaſticorum nonnullis.

Tychonis vero eximiam in obſervando induſtriam excepit *Kepleri* ſagaciſſimum & pene divinum ingenium. Hic *Tychonis* laboribus fretus Syſtema Mundi verum & Phyſicum adinvenit, ac ſcientiam Aſtronomicam in immenſum auxit; Monſtrato ſc. Planetas omnes in Planis per Solis centrum tranſeuntibus revolvi, Curvaſque Ellipticas deſcribere, eâ lege, ut Areæ Sectorum Ellipticorum, ad centrum Solis in Ellipſeos foco conſtituti, temporibus, quibus deſcribantur arcus, ſemper proportionales ſint. Invenit etiam Diſtantias Planetarum à Sole eſſe in ſeſquialtera ratione temporum periodicorum, ſive Cubos diſtantiarum eſſe ut Quadrata Temporum. Tanto autem Artifici affulſere duo Cometæ, quorum alter maxime illuſtris. Ex horum obſervatis concluſit *Keplerus* non uno parallaxis annuæ indicio, Cometas inter Orbes planetarum liberrime quaquaverſum ferri, motu quidem non multum à rectilineo diverſo, ſed quem nondum definire licuit. Ac *Hevelius*, *Tychonis* æmulus, *Kepleri* veſtigiis inſiſtens, eandem Hypotheſim Motus rectilinei amplexus eſt, ipſe plurium Cometarum Obſervator perquam ſubtilis. Cœlo tamen Calculum ſuum non penitus conſentire queſtus eſt, Viamque Cometicam verſus Solem incurvari ſuboluit.

1531 ab *Apiano* obſervatum, eundem fuiſſe cum illo qui anno 1607 deſcriptus eſt à *Keplero* & *Longomontano*, quemque ipſe iterum reverſum vidi ac obſervavi anno 1682. Quadrant Elementa omnia, ac ſola inæqualitas periodorum adverſari videtur: hæc autem tanta non eſt ut cauſis Phyſicis non poſſit attribui. *Saturni* enim motus à cæteris, præſertim *Jove*, ita interturbatur, ut per aliquot dies integros incertum ſit hujus Planetæ tempus periodicum. Quanto magis talibus erroribus obnoxius erit Cometa, qui quatuor pene vicibus altius excurrit *Saturno*, cujuſque velocitas, vel tantillum aucta, Orbem ab Elliptico in Parabolicum poſſit immutare? Confirmatur etiam eundem eſſe potuiſſe ex eo, quod anni 1456 æſtate, conſpectus fuerit Cometa eodem pene modo inter Solem & Terram tranſiens retrogradè: quem, licet à nemine obſervatus fuerit Aſtronomicè, ex periodo modoque tranſitus non diverſum à prædictis extitiſſe conjicio. Unde auſim ejuſdem reditum fidenter prædicere, anno ſcil. 1758. Quod ſi hoc evenerit, nulla amplius erit dubitandi cauſa, quin redire debeant cæteri. Habebunt ergo Aſtronomi in hac arenâ quo ſe exerceant per multa Secula, priuſquam tot tantorumque Corporum circa commune centrum Solis revolventium numerus cognoſcatur, ac motuum ſymptomata certis regulis coerceantur. Crediderim equidem Cometam etiam anni 1532 eundem fuiſſe cum illo, qui ab *Hevelio* obſervabatur ineunte anno 1661: ſed obſervationes *Apiani*, quas ſolas de primo habemus, nimis rudes ſunt, nec quicquam certi in re tam ſubtili ex iiſdem elici poteſt. Juſto volumine hæc omnia exequi mihi animus eſt, nec Aſtronomiæ promovendæ hac in re deero, ſi Deo O. M. viſum fuerit vitam facultateſque prorogare.

F I N I S.


E. HALLEIVS GEOM. PR. SAVIL. OXON. Jun 6. 1705
DAT. BIBLIOTHECA MATHEMAT. SAVIL.
Imprimatur
Ar. Charlett

o491

HALLEY, Edmund (1656-1742). *Astronomiae cometicae synopsis*. Oxford: University Press at the Sheldonian Theatre with the imprimatur of Arthur Charlett, 8 June 1705.

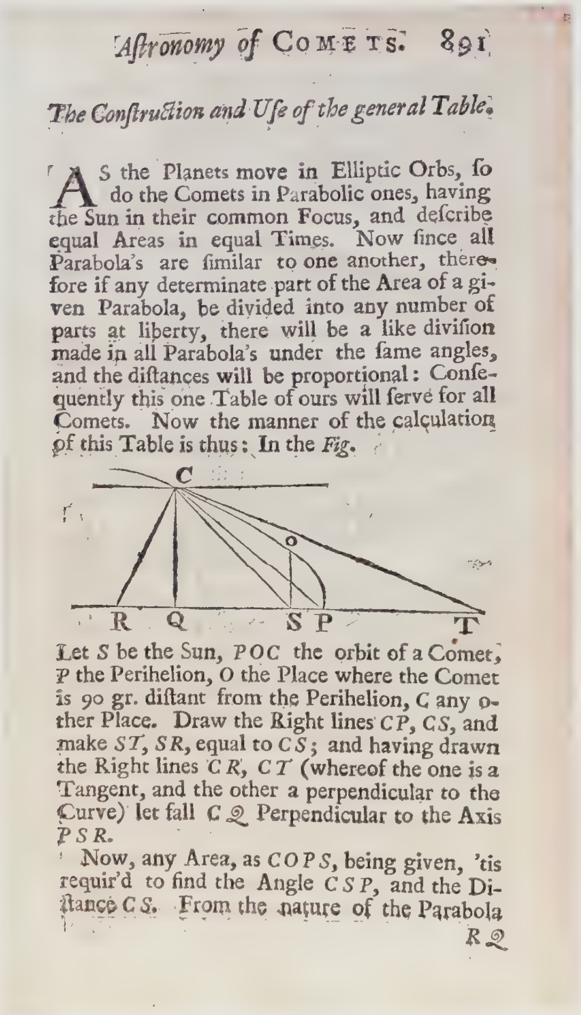
2° (355 x 232 mm.) Collation: A^2 B^1. 3 leaves, unpaginated. Caption title, printer's large engraved device at end including engraved colophon, typographic tables on A1v and A2r, small woodcut diagram on A2v. No visible watermark. (Creases from earlier folding, very slight soiling along one or two folds, upper edges a trifle frayed, B1v with slight soiling to upper margin and discoloration along gutter margin, possibly from an earlier guard.) Unbound, untrimmed (sewing holes evident); folding cloth chemise and morocco-backed gilt folding case.

FIRST EDITION, OF THE UTMOST RARITY, of Halley's presentation of his theory according to which comets belong to the solar system and move in eccentric elliptical orbits. In this work, the scientific achievement for which he is best known, Halley set forth a method of computing the motion of comets and establishing their periodicity in elliptical orbits, and identified the comet that was to bear his name. Halley's interest had been aroused by the bright comet of 1680, but it was only after the publication of Newton's *Principia* in 1696 (of which Halley had borne the expenses and to which he had contributed valuable editorial aid) that he was able to undertake an intensive investigation of comets. Newton (Book III, proposition 40), had established that "cometary orbits move in conic sections... having the sun as a focus, according to the law of areas," and he theorized that their orbits would be "so near to parabolas, that parabolas may be used for them without sensible error" (DSB). Halley's tabulations led him to favor the likelihood of an elliptical orbit. After first tabulating all available cometary observations from the 14th through the 17th centuries, he used these to calculate and tabulate the orbits of the 24 comets seen between the years 1337 and 1698. The results of his calculations, which he "sought to make as accurate as possible, not without the labour of many years" (2nd English edition, in Gregory, *Elements of astronomy*, II, p. 897) showed that three of these recently observed comets, seen in 1531, 1607 and 1682, had a nearly identical orbit, describing an elongated ellipse. Halley concluded that they were one and the same body, and later identified this comet with those sighted in 1305, 1380 and 1456. "Halley next set about calculating its return and, allowing for perturbations by the planet Jupiter, announced that it should reappear in December 1758. The comet was in fact observed on 25 December 1758, arriving some days later than Halley's calculations had indicated, but in that part of the sky he had predicted... Although this work aroused the interest of astronomers, it was not until the 1682 comet reappeared as predicted in 1758 that the whole intellectual world of western Europe took notice... The object was named 'Halley's comet.' This succcessful prediction acted as a strong independent confirmation of Newtonian gravitation" (DSB).

Halley's *Astronomiae cometicae synopsis* was translated into English ("from the copy printed at Oxford") by John Senex and published later the same year, as *A synopsis of the astronomy of comets*; it was published again in a longer Latin version in the *Philosophical translations* for 1704-1705. This first edition must have been printed in a very small number of copies; in a letter of 23 June 1705 to the printer Arthur Charlett, Halley thanks him for his "kind endeavours" and asks for a few more copies of his "papers, for most of the ten you were pleased to send me, were soiled so as not to be fit to be presented to Quality" (Macpike, p. 125). It is ONE OF THE GREATEST RARITIES OF ASTRONOMICAL LITERATURE. The ESTC lists only four copies, at Harvard, the Bodleian (2), and Oxford, Worcester College.

MacPike, *Correspondence and papers of Edmund Halley*, p. 275; cf. Dibner 12 and PMM 173 (English edition); Norman 978.

Estimate: $40,000-60,000



Aſtronomy of COMETS. 891

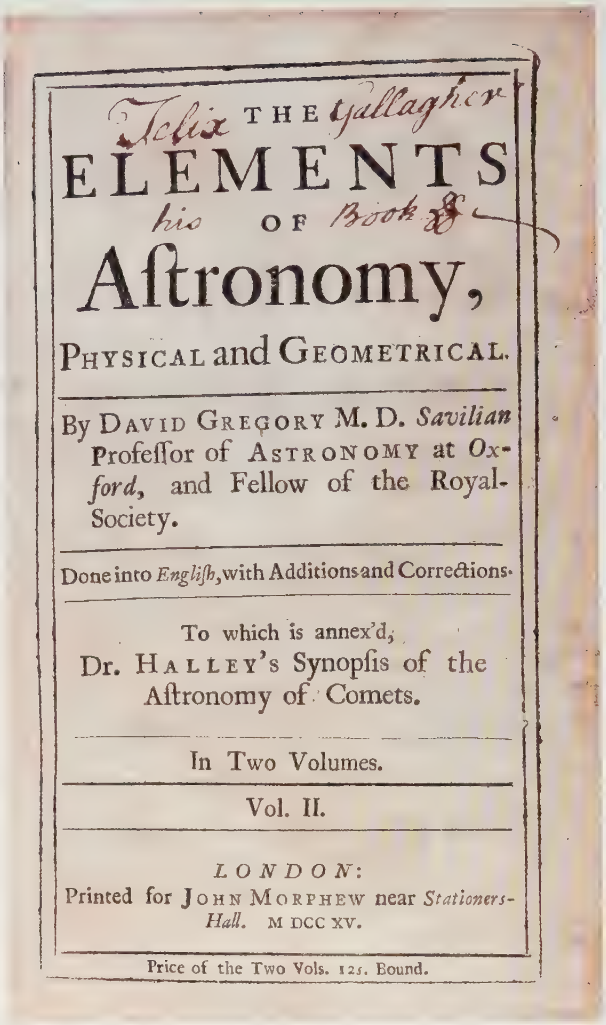
The Conſtruction and Uſe of the general Table.

AS the Planets move in Elliptic Orbs, ſo do the Comets in Parabolic ones, having the Sun in their common Focus, and deſcribe equal Areas in equal Times. Now ſince all Parabola's are ſimilar to one another, therefore if any determinate part of the Area of a given Parabola, be divided into any number of parts at liberty, there will be a like diviſion made in all Parabola's under the ſame angles, and the diſtances will be proportional: Conſequently this one Table of ours will ſerve for all Comets. Now the manner of the calculation of this Table is thus: In the *Fig.*

Let *S* be the Sun, *POC* the orbit of a Comet, *P* the Perihelion, *O* the Place where the Comet is 90 gr. diſtant from the Perihelion, *C* any other Place. Draw the Right lines *CP*, *CS*, and make *ST*, *SR*, equal to *CS*; and having drawn the Right lines *CR*, *CT* (whereof the one is a Tangent, and the other a perpendicular to the Curve) let fall *CQ* Perpendicular to the Axis *PSR*.

Now, any Area, as *COPS*, being given, 'tis requir'd to find the Angle *CSP*, and the Diſtance *CS*. From the nature of the Parabola

RQ



Felix THE Gallagher
ELEMENTS
his OF Book &c
Aſtronomy,
PHYSICAL and GEOMETRICAL.

By DAVID GREGORY M. D. *Savilian*
Profeſſor of ASTRONOMY at *Oxford*, and Fellow of the Royal-Society.

Done into *Engliſh*, with Additions and Corrections.

To which is annex'd,
Dr. HALLEY's Synopſis of the
Aſtronomy of Comets.

In Two Volumes.

Vol. II.

LONDON:
Printed for JOHN MORPHEW near *Stationers-Hall*. M DCC XV.

Price of the Two Vols. 12*s*. Bound.

492

492

[HALLEY, Edmund (1656-1742)]. GREGORY, David (1659-1708). *The elements of astronomy, physical and geometrical... to which is annex'd Dr. Halley's synopsis of the astronomy of comets.* London: John Morphew, 1715.

2 volumes, 8° (187 x 114 mm). 79 folding engraved plates, 2-page publisher's advertisement at end. Halley's *Synopsis of the astronomy of comets* appears on pp. 891-905 (vol. II). Initial blank in vol. II removed, (Some foxing and browning, occasional mostly marginal dampstaining.) 19th-century half russia gilt, marbled edges. *Provenance*: Felix Gallagher (18th-century inscriptions on titles, a few marginalia); John V. Stewart (bookplates).

First edition in English of Gregory's *Astronomiae... elementa* (1702), containing the second edition in English of Halley's epochal short treatise on comets, translated from the slightly expanded Latin version published in the 1704-1705 volume of the *Philosophical transactions.* Wallis 88.1; Norman 979.

Estimate: $800-1,200

493

HALLEY, Edmund (1656-1742). *A description of the passage of the shadow of the moon, over England, in the total eclipse of the sun, on the 22nd day of April 1715 in the morning.* [London:] I. Senex and William Taylor, [before 22 April 1715].

Engraved full-sheet broadside (455 x 285 mm). Engraved map of England and most of Scotland with darkened areas showing the location of maximum shadow during the eclipse, 2-line caption at top, engraved descriptive text at bottom in two columns of 18 lines. (Small holes at fold junctures, one small marginal fold break.)

EDMUNDUS HALLEIUS R.S.S.
Astronomus Regius et Geometriæ Professor Savilianus

494

FIRST EDITION, a rare illustrated broadside publication of Halley's prediction of the area to be affected by the total solar eclipse of April 1715. Halley explains in the descriptive note his motivation for publishing a broadside in anticipation of the event: "The like Eclipse having not for many ages been seen in the Southern Parts of Great Britain, I thought it not improper to give the Publick an Account thereof, that the sudden darkness, wherein the Starrs will be visible about the Sun, may give no surprize to the People, who would, if unadvertized, be apt to look upon it as Ominous, and to interpret it as portending evill to our Sovereign Lord King George and his Government... Hereby they will see that there is nothing in it more than Natural, and no more than the necessary result of the Motions of the Sun and Moon..." Halley was among the first astronomers to methodically study eclipse phenomena. MacPike, p. 276; Norman 980.

Estimate: $1,500-2,000

○494

HALLEY, Edmund (1656-1742). *Tabulae astronomicae. Accedunt de usu tabularum praecepta.* Edited by John Bevis. London: William Innys, 1749.

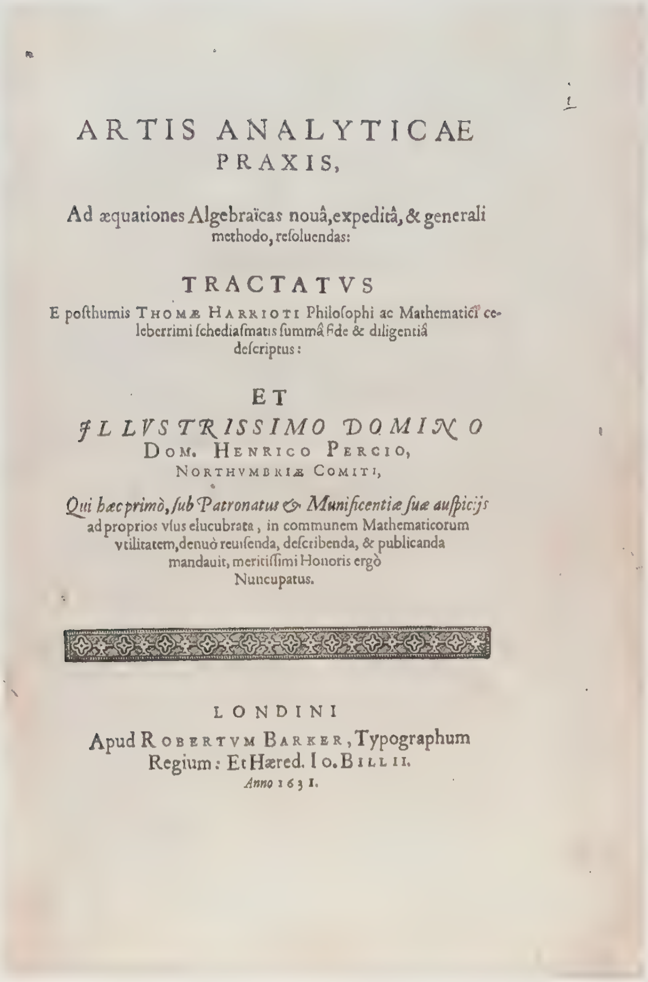
4° 281 x 222 mm). Engraved frontispiece portrait, licence leaf, errata leaf at end. (Marginal soiling and spotting, a few leaves browned, quire O^3 misbound.) Contemporary calf (rebacked).

Provenance: Nevil Maskelyne (1732-1811), Astronomer-Royal from 1765 until his death (1751 inscription on front free endpaper, note on front pastedown, inserted manuscript tables); Anthony Mervin Storey, Maskelyne's son-in-law (inscription).

FIRST EDITION. "Halley's astronomical contributions were not confined to comets, and he made notable advances in the determination of the distance of the sun, in positional and navigational astronomy, and in general stellar astronomy" (DSB). These posthumously published astronomical tables include Halley's calculations relating to the so-called "long inequality" of Jupiter and Saturn, caused by the deacceleration of Saturn and the increasing acceleration of Jupiter. Halley correctly theorized that this phenomenon might be the result of a gravitational attraction between the two planets. The edition also contains the third Latin edition of the *Synopsis astronomiae cometicae*.

An interesting association copy, including a loosely inserted folded quarto sheet bearing three pages in Maskelyne's hand, the first two containing tables copied from the *Memoires de l'Académie des Sciences*, of "a series of oppositions of Saturn & the Sun," the last page containing Maskelyne's comments on some of Halley's calculations. Houzeau and Lancaster 12796; MacPike, p. 278; Norman 981.

Estimate: $1,000-1,500



1

ARTIS ANALYTICAE
PRAXIS,

Ad æquationes Algebraïcas nouâ, expeditâ, & generali
methodo, reſoluendas:

TRACTATVS
E poſthumis THOMÆ HARRIOTI Philoſophi ac Mathematici celeberrimi ſchediaſmatis ſummâ fide & diligentiâ
deſcriptus:

ET
ILLVSTRISSIMO DOMINO
DOM. HENRICO PERCIO,
NORTHVMBRIÆ COMITI,

Qui hæc primò, ſub Patronatus & Munificentiæ ſuæ auſpicijs
ad proprios vſus elucubrata, in communem Mathematicorum
vtilitatem, denuò reuiſenda, deſcribenda, & publicanda
mandauit, meritiſſimi Honoris ergò
Nuncupatus.

* * *

LONDINI
Apud ROBERTVM BARKER, Typographum
Regium: Et Hæred. Io. BILLII.
Anno 1631.

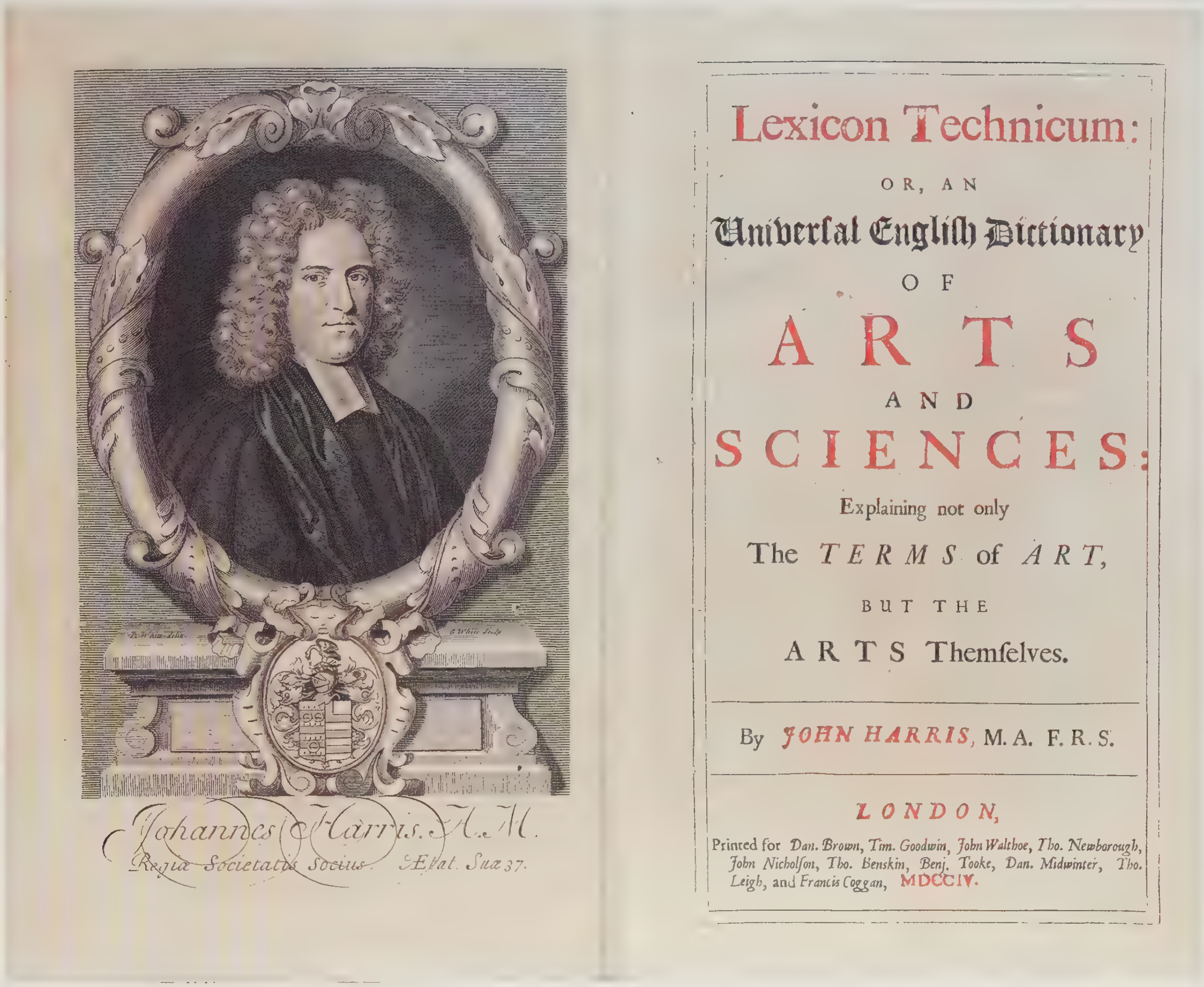
495

HARRIOT, Thomas (ca. 1560-1621). *Artis analyticae praxis, ad aequationes algebraïcas... resolvendas: tractatus.* Edited by Walter Warner. London: Robert Barker and heirs of John Bill, 1631.

2° (317 x 217 mm). Collation: A^2 B-Z^2 Aa-Zz^2 Aaa-Bbb^2. 96 leaves (*A*1 and Bbb2 blank). Woodcut head-pieces and initials. (Occasional slight discoloration.) Contemporary calf, covers panelled in gilt and blind, gilt fleurons at corners of inner gilt panel, smooth spine, remains of two pairs of silk ties, edges red-sprinkled (somewhat stained and rubbed, gilt spine decoration worn away, a few small holes and cracks to joints). *Provenance*: John Hope (inscription in Latin dated Tyringham, 9 December 1672, stating that he owns other books of this type); Marquess of Linlithgow, Hopetoun (armorial bookplate).

FIRST EDITION. Other than his 1588 *Briefe Report* on Virginia, where he had been sent by Sir Walter Raleigh as a surveyor and general scientist accompanying Sir Richard Grenville's 1585 expedition, Harriot published nothing in his lifetime, being plagued by severe ill health in his last years. He left behind, however, more than 10,000 folio pages of scientific manuscripts in the fields of mathematics, astronomy, optics, and physics. Published 10 years after his death, this treatise contains his path-breaking inventions in the field of algebra. Expanding upon and systematizing the work of Vieta, Harriot set the standard for future algebraic textbooks by introducing a new system of notation, including the symbols < and >, and provided a comprehensive theory of equations that anticipated Descartes. Sabin 30376; STC 12784; Norman 991.

Estimate: $3,000-5,000



Johannes Harris. A.M.
Regiæ Societatis Socius. Ætat. Suæ 37.

Lexicon Technicum:
OR, AN
Univerſal Engliſh Dictionary
OF
ARTS
AND
SCIENCES:
Explaining not only
The *TERMS* of *ART*,
BUT THE
ARTS Themſelves.

By *JOHN HARRIS*, M.A. F.R.S.

LONDON,
Printed for *Dan. Brown, Tim. Goodwin, John Walthoe, Tho. Newborough, John Nicholſon, Tho. Benskin, Benj. Tooke, Dan. Midwinter, Tho. Leigh*, and *Francis Coggan*, MDCCIV.

496

HARRIS, John (1666?-1719). *Lexicon technicum: Or, an universal English dictionary of arts and sciences: Explaining not only the terms of art, but the arts themselves*. London: Dan Brown and others, 1704-10.

2° (314 x 202 mm [Vol. 1]; 326 x 198 mm [Vol. 2]). Engraved portrait frontispiece of John Harris by G. White after R. White [Vol. 1]; titles printed in red and black. 7 engraved plates (2 folding) [Vol. 1]; 7 engraved plates (6 folding) [Vol. 2], numerous text woodcuts in both volumes. Contemporary panelled calf, shield with the Cross of St George within the Garter tooled in blind on front and back covers (rebacked, preserving original black leather spine label) [Vol. 1]; contemporary English blind-tooled panelled calf [Vol. 2]. *Provenance*: Chapter Library at Windsor Castle (withdrawal stamp) [Vol. 1]. FIRST EDITION. John Harris, Secretary of the Royal Society from 1709, was "the earliest lexicographer to distinguish between a word-book (dictionary) and a subject-book (encyclopedia proper)" (PMM). The Lexicon included lengthy quotes from the works of Sir Isaac Newton, who is included on the subscriptions list in Vol. 2, for a large paper copy. Grolier/Horblit 25a; PMM 171a; Wellcome III, p.212; Norman 992. (2)

Estimate: $2,000-3,000

ɔ497

HARRIS, Walter (1647-1732). *Pharmacologia anti-empirica: or a rational discourse of remedies both chymical and galenical.* London: Richard Chiswell, 1683.

8° (181 x 111 mm). Errata on a8v, 2-page publisher's ads at end. Contemporary black morocco, covers gilt panelled, spine gilt, gilt edges (a bit rubbed). *Provenance*: Henry Somerset (1629-1700), first Duke of Beaufort, the dedicatee of the present work (ms. shelfmarks of the library at Badminton House on verso of front free endpaper).

FIRST EDITION, THE DEDICATION COPY, of Harris's first book, a semi-humourous treatise on medicinal drugs and their history. Harris discusses the controversy between the Galenists, proponents of traditional medical practices, and the Paracelsians, who advocated the use of chemical medicine, a form of treatment that by the late 17th century had become fairly widely accepted. Separate chapters are devoted to each of the six traditional "great remedies" antimony, mercury, vitriol, iron ("chalybeats"), quinine ("cortex" or "American bark" or "Jesuit's powder"), and opium. "A very empty essay on the causes of gout is intercalated, with no discoverable reason but that the Duke of Beaufort, to whom the whole work is dedicated, was threatened with attacks of that disorder" (DNB). Harris was physician to Charles II and later to William and Mary, whom he attended during her final illness. NLM/Krivatsy 5274; Wellcome III, p.212; Wing H-885; Norman 993.

Estimate: $1,500-2,000

ɔ498

HARRIS, Walter (1647-1732). *De morbis acutis infantum.* London: Samuel Smith, 1689.

8° (186 x 107 mm). (Occasional faint dampstaining, adhesive stains to H8v and I1r obscuring 7 letters). Contemporary calf (rebacked). *Provenance*: Henry Somerset (1684-1714), second Duke of Beaufort (engraved bookplate); Samuel Bradley (1752 inscription, front free endpaper); later inscription, largely illegible, on lower pastedown ("given to me by my(?) Dr...")

FIRST EDITION of Harris's popular treatise on diseases of childhood, which remained a standard work on pediatrics until the publication of Underwood's *Treatise on the diseases of childhood* in 1784. "Harris advocated the theory that all diseases of infancy were caused by acidosos, and recommended treatment by some form of calcium carbonate—an anticipation of the modern treatment of tetany. He also advised caution in the administration of drugs, and denounced the practice of giving opiates and wine to young children" (Norman). The popularity of the work throughout Europe is attested by the numerous later editions, and translations into German (1691), English (1693), and French (1730). Garrison-Morton 6321; NLM/Krivatsy 1689. Waller 4069; Wellcome III, p. 213; Wing H-880; Norman 994.

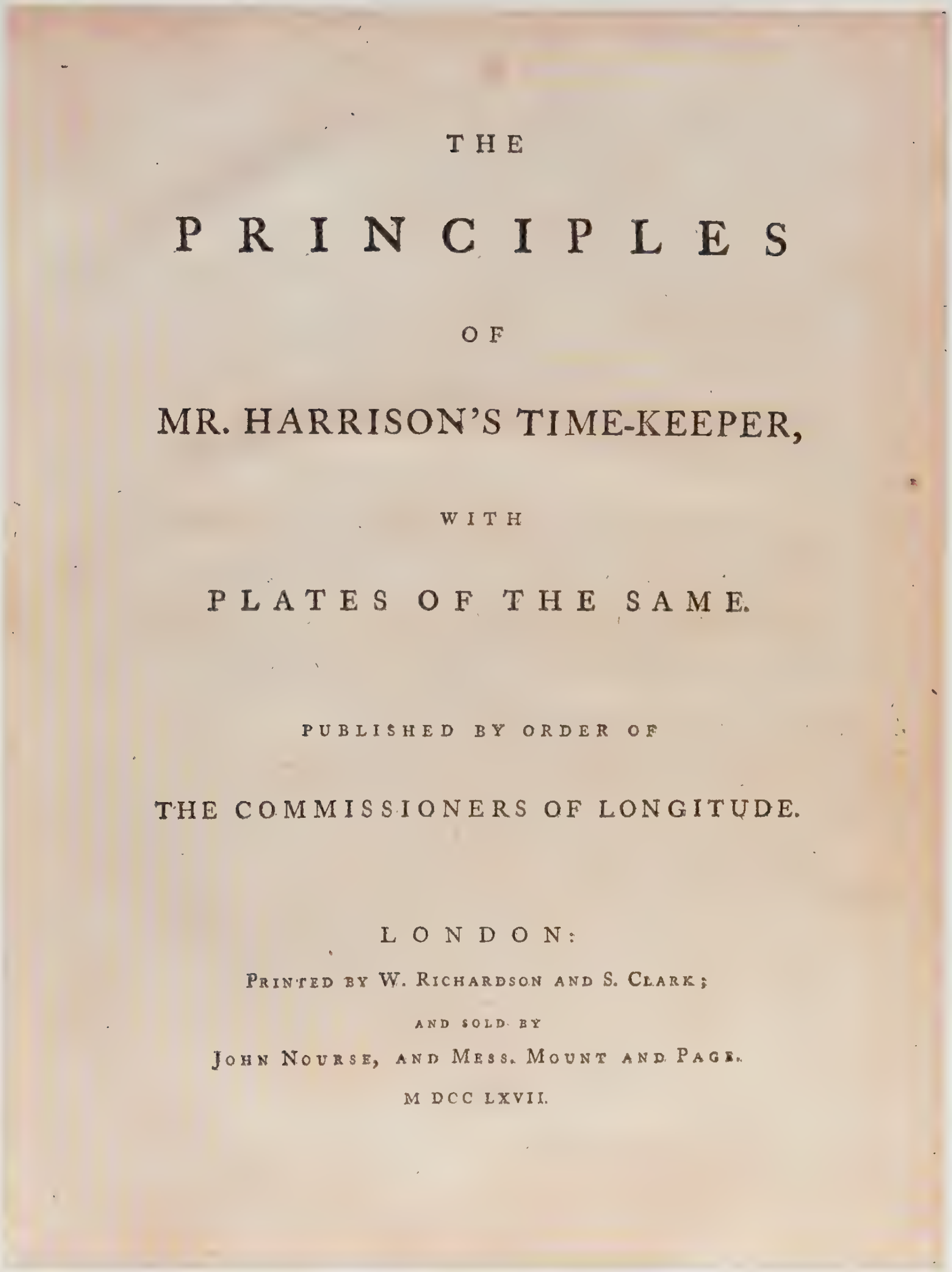
Estimate: $3,000-4,000

ɔ499

HARRISON, John (1693-1776) [and Nevil MASKELYNE (1732-1811)]. *The principles of Mr. Harrison's time-keeper, with plates of the same. Published by order of the Commissioners of Longitude.* London: W. Richardson and S. Clarke for John Nourse and Mess. Mount and Page, 1767.

4° (243 x 189 mm). Half-title, 10 folding engraved plates. (Occasional light foxing). Contemporary French mottled calf (joints split, covers nearly detached, corners abraded, spine obscured by shelfmark labels).

FIRST EDITION of the "description of the famous solution to the centuries-old world-wide problem of finding the longitude" (Grolier/Horblit). In 1714 the Board of Longitude offered a reward of £20,000, an impressive sum of money at the time, to anyone who could find a reliable and accurate method for determining longitude at sea. In 1730 the clockmaker John Harrison completed a manuscript describing some of his chronometrical inventions, including a chronometer "accurate enough to measure time at a steady rate over long periods, thus permitting the measurement of longitude by comparison of local solar time with an established standard time" (Norman). On the strength of his descriptions, Harrison obtained a loan from George Graham, a leading maker of clocks and watches, for the construction of his timekeeper. After numerous attempts, involving instruments in several different shapes and sizes, most of which either Harrison himself or his son William tested on ocean voyages, Harrison succeeded in contructing a chronometer that was both accurate and convenient in size, which was successfully tested on two voyages to the West Indies in 1761 and 1764. After the successful trial



THE

PRINCIPLES

OF

MR. HARRISON'S TIME-KEEPER,

WITH

PLATES OF THE SAME.

PUBLISHED BY ORDER OF

THE COMMISSIONERS OF LONGITUDE.

LONDON:

Printed by W. Richardson and S. Clark;

and sold by

John Nourse, and Mess. Mount and Page.

M DCC LXVII.

of his first device in 1737, the Board of Longitude had encouraged him with a grant of £500, and had begrudgingly followed this up with more small payments over the years. Following the two successful trials of his fourth and best instrument, Harrison felt that he had a right to the prize, but the Board of Longitude hedged, insisting on a demonstration and full written description of his invention. The demonstration took place on 22 August 1765, in the presence of the astronomer-royal Nevil Maskelyne and a six-member committee of experts appointed by the Board. The results were written up and published in this pamphlet by Maskelyne, along with Harrison's own description of his timekeeper. Still unsatisfied, the Board awarded Harrison only half the prize money, and continued to raise obstacles, subjecting his chronometer to extreme and unrealistic tests, and requiring him to build yet two more examples. It was not until 1773, after direct intervention by King George III, that the 80-year old inventor was paid the remainder of the prize money, His four earliest chronometers are preserved at the Royal Observatory in Greenwich. Although it was soon supplanted by simpler mechanisms, Harrison's timekeeper "revolutionized the science of navigation, as it gave navigators their first means of observing true geographical position at any given moment during a voyage. There was no comparable advance in navigational aids until the development

continued

of radar in the twentieth century" (Norman). Grolier/Horblit 42b; Norman 995.

[*Bound with*:]

MASKELYNE. *An account of the going of Mr. Harrison's watch, at the Royal Observatory, from May 6th, 1766, to March 4th, 1767...published by order of the Commissioners of Longitude*. London: W. Richardson and S. Clark for John Nourse and Mount and Page, 1767. 4°. Typographic tables. Inserted 19th-century engraved and aquatint portrait of Maskelyne, by E. Scriven after Vanderburgh.

FIRST EDITION. One of several pamphlets printed during Harrison's travails with the Board of Longitude, containing Maskelyne's report of the performance of Harrison's timekeeper in a series of excessively rigorous tests that Harrison considered "frivolous" (DNB). Maskelyne concluded that Harrison's watch "cannot be depended upon," but that it was nonetheless "a useful and valuable invention" (p. 24). Norman 997.

[*Bound with*:]

HARRISON [and MASKELYNE]. *Principes de la montre de Mr. Harrison*.... Translated and edited by Esprit Pexenas (1692-1776). Avignon: Veuve Girard, F. Seguin, J. Aubert; Paris: Jombert, Desaint, and Saillant, 1767. 4°. Text in English and French, 7 engraved folding plates; woodcut title ornaments.

Pezenas's anonymous translation of Harrison's *Principles* of the same year, followed by Pezenas's description and critical assessment of the Board of Longitude's handling of Harrison's chronometer. Pezenas, a Jesuit priest, was professor of hydrography at the École Royale d'Hydrographie in Marseilles and later director of the Observatoire de Ste.-Croix in the same city. He published several works of his own and "played a major role in the diffusion in France of important works by English scientists" (DSB). Norman 996.

[*Bound with*:]

HARRISON. *Extrait de la réponse de M^r Jean Harrison aux remarques et objections de Monsieur Maskelyne, servant de suite aux Principes de la Montre de M. Harrison*. Translated and edited by Esprit Pezenas. Avignon: Veuve Girard, F. Seguin, J. Aubert; Paris: Jombert, Desaint, and Saillant, 1767. 4°. (Short internal tear to title not affecting text.)

A French translation and paraphrase by Pezenas of Harrison's *Remarks on a pamphlet lately published by the Rev. Mr. Maskelyne*, his response to Maskelyne's *Account* (see above), interspersed with remarks by the editor. In his reply Harrison disputes Maskelyne's report point by point and demonstrates the unreliability of Maskelyne's favored method of finding the longitude by means of lunar tables. Norman 998.

[*Bound with*:]

[LE ROY, Pierre (1717-1758)]. COURTANVAUX, François César Le Tellier, Marquis de (1718-1781). *Précis du voyage... pour la vérification de quelques instrumens destinés à la détermination des longitudes sur mer. Lu à l'Assemblée publique de l'Académie Royale des Sciences, le 14 Novembre de l'année 1767*. Paris: Imprimerie Royale, 1768. 4°. Woodcut royal arms on title, woodcut headpiece.

Horloger du roi from 1754, Pierre Le Roy invented a completely original marine chronometer in the 1750s, which he perfected over the next decade and presented to Louis XV in 1766. In 1767 he entered his machine, which "embodied all the principles upon which later marine chronometers were constructed" (Norman), in a competition sponsored by the Académie des Sciences. The present pamphlet contains a report of the first trial to which it was subjected, in a voyage between Le Havre and Amsterdam aboard the yacht of the Marquis de Courtanvaux. Le Roy was awarded a double prize in 1768, for his chronometer and for his memoir describing it. Norman 1335.

[*Bound with*:]

LE ROY, Pierre. *Exposé succint des travaux de MM. Harrison et Le Roy, dans la recherche des longitudes en mer*. Paris: Nyon, Jombert, Prault, 1768. 4°, half-title. *Provenance*: contemporary marginal notes and corrections by a critical and technically informed reader.

Le Roy felt that he, and not Harrison, deserved credit for the invention of the first accurate marine chronometer. In this pamphlet he printed the full text of his 1754 memoir and compared his work favorably to Harrison's timekeeper. Although he failed to establish priority over Harrison, Le Roy is generally credited with having developed a less derivative instrument, the first to operate on the same principles as the modern marine chronometer. Norman 1334.

[*Bound with*:]

[FLEURIEU, Charles Pierre Claret d'Éveux de, Comte (1738-1810). *Examen critique d'un mémoire publié par M. le Roy... sur l'épreuve des horloges propres à déterminer les longitudes en mer.* "London and" Paris: Vente, 1778. 4°. Half-title, woodcut ornaments, errata note at end. (Occasional discoloration.) *Provenance*: note on G3r by the annotator of the previous pamphlet. A refutation of Le Roy's claims by the protegé of a rival inventor, the Swiss watchmaker Berthoud. Norman 801.

A remarkable *Sammelband* of pamphlets relating to the first accurate marine chronometer, collected by and bound for an 18th-century French owner.

(7)

Estimate: $15,000-20,000

›500

HARRISON, John (1693-1776). *A description concerning such mechanism as will afford a nice, or true Mensuration of Times; together with some account of the attempts for the discovery of the Longitude by the Moon: as also an account of the discovery of the scale of musick.* London: for the author and T. Jones, 1775. 8° (197 x 127 mm). Half-title (occasional minor foxing). Modern buckram library binding. Concerning pendulums and their escapements, with references to the author's watch for the longitude, and his complicated proposed theory of music, based on the figure π. FIRST EDITION. G.H. Bailliie, *Clocks & watches* (London, 1951), p.298; J. Bromley, *The clockmaker's library* (London, 1977), 412; Norman 1000. [*Bound with*:] MUDGE, Thomas (1760-1843). *A narrative of facts relating to some time-keepers, constructed by Mr. Thomas Mudge, for the discovery of the longitude at sea.* London: for Thomas Payne, 1792. 8°. Half-title. FIRST EDITION. Thomas Mudge junior's defence of his father's marine chronometer, which failed to win the £10,000 prize offered by Parliament for finding longitude due to mishandling in testing by the Astronomer Royal Nevil Maskelyne (see lots 629 and 650). Baillie, p.338; Bromley 601; Norman 1563. [*Bound with*:] WALES, William (c.1743-1798). *The method of finding the longitude at sea, by time-keepers: to which are added, tables of equations to equal attiudes.* London: C. Buckton for the author, and others, 1794. 8°. Folding engraved plate by Neele. (Occasional very minor foxing to text). FIRST EDITION. Baillie, p.350; Bromley 866; Norman 2174. [*Bound with*:] *Report from the Select Committee of the House of Commons, to whom it was referred to consider of the report which was made from the Committee to whom the petition of Thomas Mudge, Watch-maker, was referred.* [London: n.p., 1793]. 8°. (Title-page browned). 2 folding printed tables. FIRST EDITION. As well as defending his father's marine chronometer by criticising Maskelyne, Mudge petitioned Parliament to recognise his father's work. A Committee found favorably towards him, and despite objections by the Board of Longitude, Parliament awarded him £2,500. Baillie, p. 345; Bromley 656; Norman 1564.

Provenance: Musueum of Sciences and Industry (gilt on spine; embossed on O2 of Wales' *Method*).

Estimate: $1,000-1,500

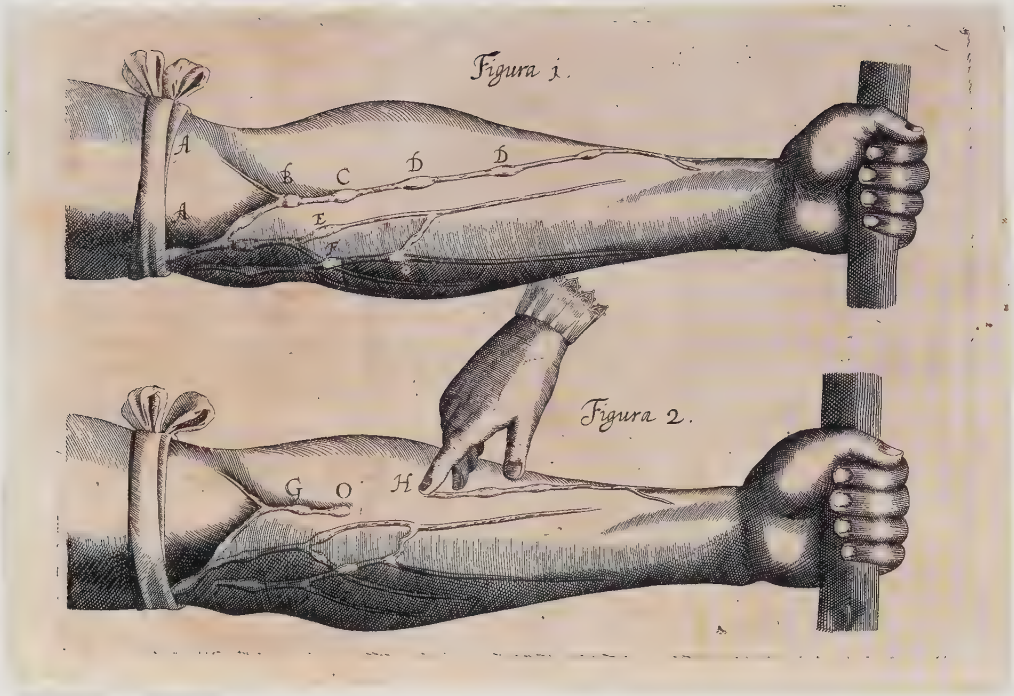
›501

HARTLEY, David (1705-1757). *Observations on man, his frame, his duty, and his expectations.* London: S. Richardson for James Leake and WIlliam Frederick, Bath; and Charles Hitch and Stephen Austen, London, 1749.

8° (196 x 121 mm). Contemporary gilt-ruled sprinkled calf, gilt-ruled spines with red leather labels (joints cracked, spines dried).

FIRST EDITION. "A tour de force which considers every significant topic in neurophysiology and human and comparative psychology, explained in terms of the development of complex ideas and habits from simple sensations and their repeated juxtaposition in experience" (DSB). The author combined Locke's principle of the association of ideas, Gay's attempts to relate man's experiences of pleasures or pain to this principle, and ideas from Newton's *Opticks* concerning the reception by the brain and nerves of vibrations from light received by the eye. The author's most important work, and the first English work to use the word "psychology" in its modern sense. Wellcome III, p.215; Norman 1003.

Estimate: $1,000-1,500



502

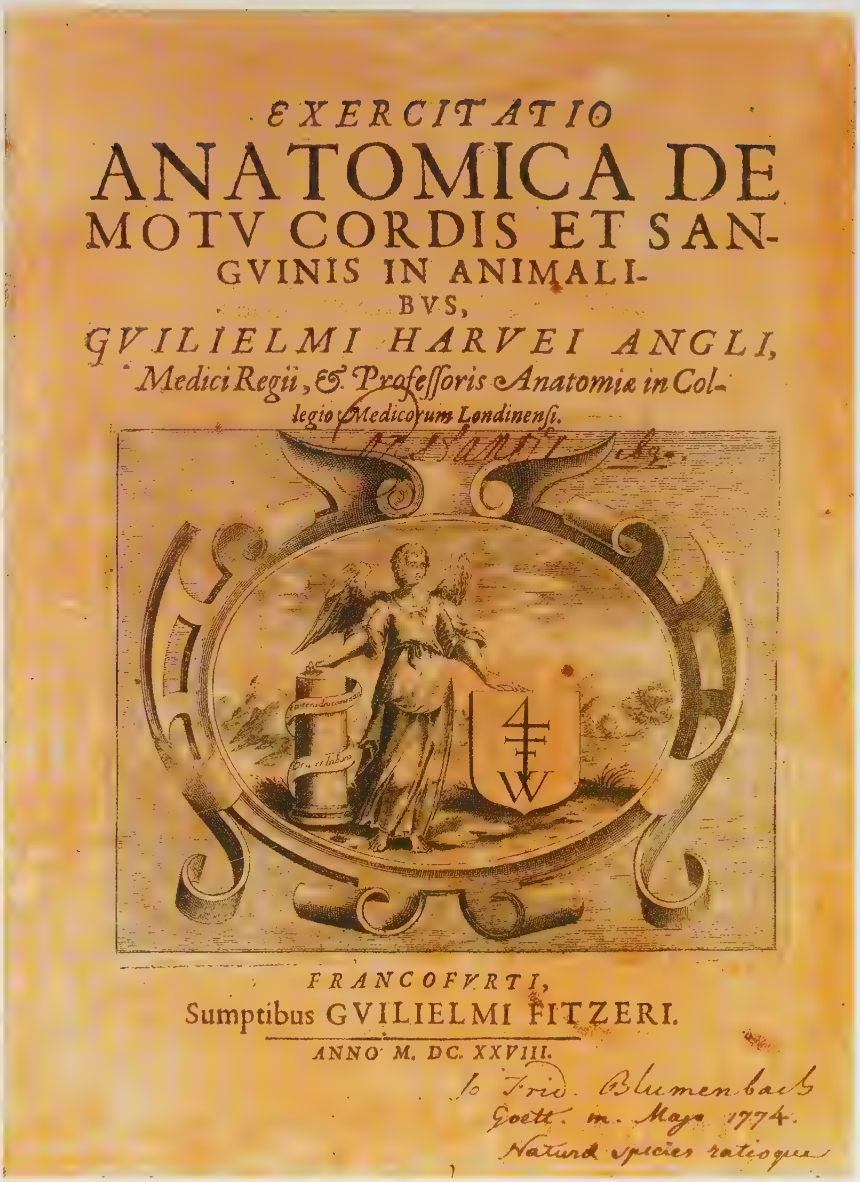
HARVEY, William (1578-1657). *Exercitatio anatomica de motu cordis et sanguinis in animalibus.* Frankfurt: William Fitzer, 1628.

4^{o} (201 x 149 mm). Collation: A-I^{4}. 36 leaves, without quire K^{2} which contains the errata and is found only in a few copies. Two folding engraved plates, printer's engraved device on title page, ornamental woodcut initials, woodcut or typographical head-pieces and tail-piece. (Text browned as usual.) Old limp vellum (pastedowns partially lifted, title lettered on front cover); modern morocco folding case.

Provenance: Constantijn Huygens (1596-1687), Dutch poet, diplomat, and father of Christiaan Huygens (motto and date, "Constanter 1630," on title page); Johann Jakob Huber (1707-1778), friend of Albrecht Haller and professor of medicine at Kassel (signature, dated 1741, on flyleaf); Johann Friedrich Blumenbach (1752-1840), professor of medicine at Göttingen, who contributed to the development of scientific anthropology and evolutionary theory (inscription, dated Göttingen 1774, title page, and 48 lines of text in his hand on the front pastedown); Ernst Friedrich Gustav Herbst (1803-1893), student and colleague of Blumenbach, who purchased the book at the auction of Blumenbach's library in 1840 (pencilled note "Physiol." on back pastedown); by descent to Robert Herbst who sold it in 1979.

FIRST EDITION OF ONE OF THE MOST IMPORTANT BOOKS IN THE HISTORY OF MEDICINE AND BIOLOGICAL SCIENCE, DESCRIBING THE DISCOVERY OF THE CIRCULATION OF THE ENTIRE BLOOD SYSTEM. Harvey's theory of the circulation of the blood, parts of which were hinted at in lecture notes as early as 1616, was fully articulated and presented to the public only in 1628 in this, his first publication. The discovery was undoubtedly influenced by the account of the pulmonary circulation published by Realdo Colombo in 1559 (Part I, lot 70), and by Girolamo Fabrici's discovery of the venous valves. Harvey studied under Fabrici at Padua, and the engraved plates which illustrate *De motu cordis* were modelled on the illustration in Fabrici's *De venarum ostiolis*, published in Padua in 1603 (see lot 435). Nevertheless, "it was left for Harvey to combine these discoveries, to conceive the idea of a circulation of the entire blood system, and demonstrate it conclusively by an exhaustive series of dissections and physiological experiments" (PMM). Harvey's discovery was to become "THE CORNERSTONE OF MODERN PHYSIOLOGY AND MEDICINE" (Garrison-Morton).

De motu cordis was published in Frankfurt am Main by the Englishman William Fitzer, son-in-law and successor of Johann Theodor de Bry, who had perhaps been recommended to Harvey by his fellow-physician Robert Fludd. The paper used by Fitzer to print both text and plates for



EXERCITATIO
ANATOMICA DE
MOTV CORDIS ET SANGVINIS IN ANIMALIBVS,
GVILIELMI HARVEI ANGLI,
Medici Regii, & Professoris Anatomiæ in Collegio Medicorum Londinensi.

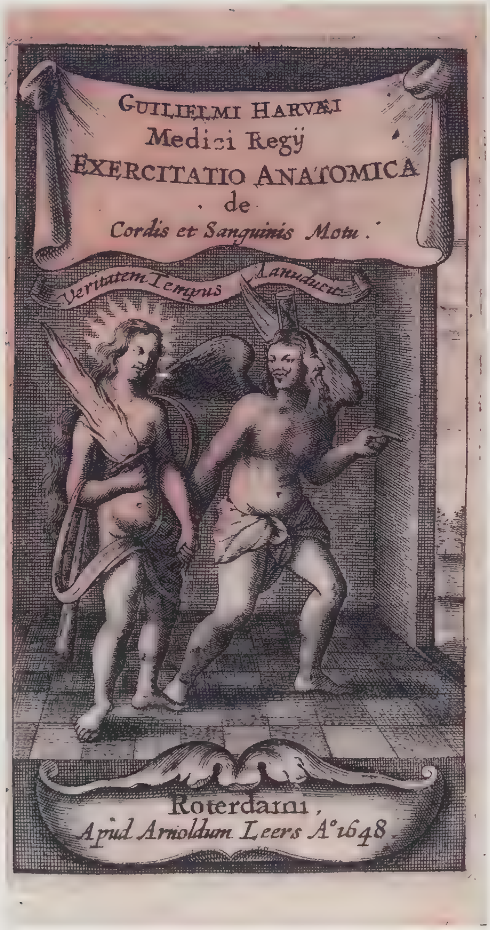
FRANCOFVRTI,
Sumptibus GVILIELMI FITZERI.
ANNO M. DC. XXVIII.

Jo. Frid. Blumenbach
Goett. m. Majo 1774.
Natura species ratioque

the greater part of the edition has browned with age in virtually all surviving copies. In the present copy, the plates are printed on paper with closer chain lines and a different watermark from the paper used for the text. Although the Norman catalogue describes them as having been inserted from a later edition, this is not the case. The impressions correspond to the plates in other copies of the first edition, and later editions of *De motu cordis* either were not illustrated or used different engravings. Moreover, the present plates have formed part of this copy from the beginning, as shown by the fact that they share the stab holes that held the newly folded and gathered sheets together until they could be bound. The two paper stocks, text and plates, found in the Norman copy correspond to those in the so-called fine paper copy of *De motu cordis* at the College of Physicians of Philadelphia. In addition, the chain-space measurements of the text paper in these two copies match those of the so-called thin-paper copies we have examined, suggesting that the distinction between "fine paper" and "thin paper" made by Keynes needs to be reconsidered. Only the engraved plates are known on two kinds of paper (text paper or Norman/Philadelphia paper), but this hardly justifies the division of the edition into different issues.

Dibner *Heralds of Science* 123; Garrison-Morton 759; Grolier/Horblit 46; Grolier *Medicine* 27A; *Heirs of Hippocrates 416*; Keynes *Harvey* 1; NLM/Krivatsy 5328; Osler 692; PMM 127; Waller 4088; Wellcome 3069; Norman 1006.

Estimate: $120,000-180,000


GUILIELMI HARVÆI
Medici Regij
EXERCITATIO ANATOMICA
de
Cordis et Sanguinis Motu.
Veritatem Tempus Manuducit
Roterdami,
Apud Arnoldum Leers A° 1648

503

HARVEY, William (1578-1657). *Exercitationes duae anatomicae de circulatione sanguinis*. Rotterdam: Arnold Leers, 1649. 12° (118 x 67 mm). Collation: A-F^{12}. 72 leaves. Contemporary vellum over pasteboard (front cover stained). Keynes *Harvey* 32; NLM/Krivatsy 5340; Waller 4116; Norman 1010.

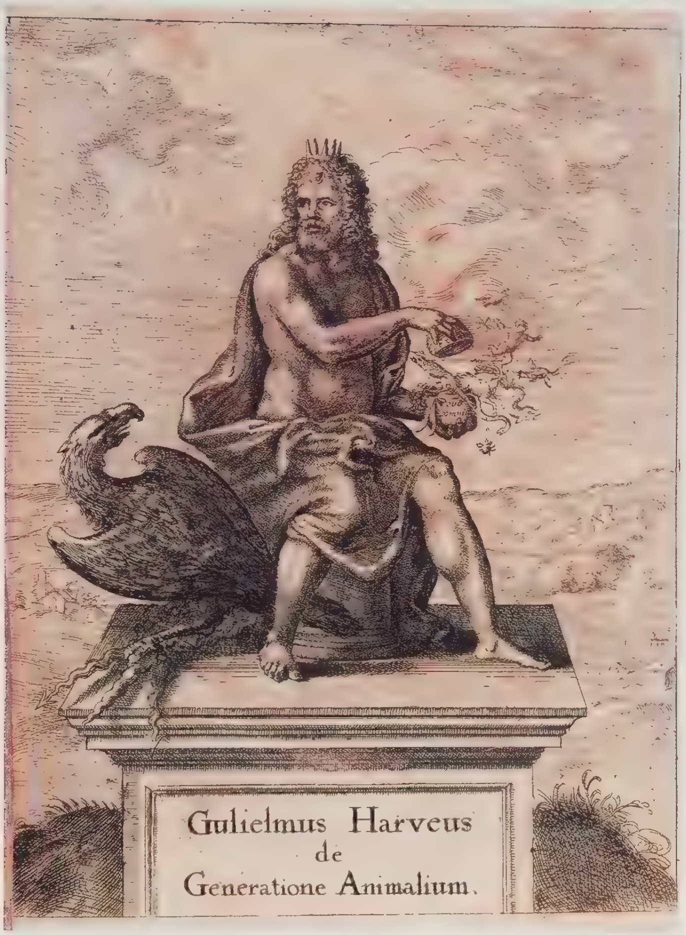
[*Bound with*:]

HARVEY, William. *Exercitatio anatomica de motu cordis & sanguinis*. - Zacharias SYLVIUS (1508-1664). *Prefatio*. - Jacobus de BACK (1593/4-1658). *Dissertatio de corde*. Rotterdam: Arnold Leers, 1648. 12°. Collation: $*^{12}$ $**^{8}$ A-I^{12}; π^{2} A-I^{12} K^{8} (K7,8 blank). 92, 118 leaves. Engraved title and two full-page engraved illustrations. (Some browning, π1 and π2 bound in reverse order.) *Heirs of Hippocrates* 421; Keynes *Harvey* 7; NLM/Krivatsy 5332; Osler 695; Waller 4091; Wellcome III, p. 219; Norman 1007.

Harvey's two essays *Exercitationes duae anatomicae de circulatione sanguinis* were written in response to the noted Parisian anatomist Jean Riolan (1580-1657), the best-known and most persistent critic of Harvey's theory of the circulation of the blood. Although he had previously remained silent in the face of criticism, when Riolan published a rival theory of circulation, Harvey refuted it in detail and also answered Descartes' arguments against his claims about the movements of the heart. Called by Keynes "one of [Harvey's] major contributions to medical science" the *Exercitationes duae* were published in two editions in 1649, the present Rotterdam edition and a Cambridge edition by Roger Daniels (Wing H-1087); no priority has been established. The only other separate edition of the work was published in Paris in 1630; otherwise it was printed only as an appendix to editions of *De motu cordis*.

The Rotterdam 1648 edition of *De motu cordis*, the seventh edition of the work, was the first of four published by Arnold Leers. It included a preface by Zachariah Wood and James de Back's *Dissertatio de corde*, a defense of Harvey written in 1647.

Estimate: $8,000-12,000



504

HARVEY, William (1578-1657). *Exercitationes de generatione animalium. Quibus accedunt quaedam de partu: de membranis ac humoribus uteri: & et conceptione.* London: William Dugard, for Octavian Pulleyn, 1651.

4^{o} (225 x 156 mm). Collation: π^4 a^4 B-Z^4 Aa-Ss^4 (π1, C4, Ss4 blank). 168 leaves. Engraved title, woodcut title-page vignette, headpieces, ornamental initials. Preliminary quire folded and bound in the order π3, 4, 1, 2; quire a bound after π4. (Browned, unobtrusive mend to blank area of title page.) Contemporary vellum over thin pasteboard.

Provenance: "Monsieur de Bons, conseiller du roy en la cour des aydes contes et finances de Montpelier" (contemporary inscription on final leaf, ex libris on title page, signature on back cover); unidentified armorial blind stamp on binding; Ariano(?), Discalced Carmelites (inkstamp, title page); Lt. L. Lassenge, 40^{e} Reg. d'Infanterie (ink stamp, last page); Herbert McLean Evans (1882-1971) (bookplate).

FIRST EDITION. "After the publication of *De motu cordis*, Harvey turned his attention to the study of generation. Even if Harvey had not discovered the circulation of the blood, his remarkable work on embryology would have placed him in the front ranks of biological scientists" (Norman). Harvey disagreed with the prevailing theory, based on Aristotle and Galen, that the fetus was formed by the action of semen on menstrual blood, and also denied the doctrine of the "preformation" of the fetus. Instead, after studing the development of chick and deer embryos, he argued that animal life proceeds from eggs by the gradual building up of the parts. This principle was to become one of fundamental importance in the history of embryology.

Garrison-Morton 467; Keynes *Harvey* 34; NLM/Krivatsy 5342; Osler 710; Waller 4118; Wing H-1091; Norman 1011.

Estimate: $4,000-6,000

○505

HARVEY, William (1578-1657). *Anatomical exercitations, concerning the generation of living creatures: To which are added particular discourses, of birth, and of conceptions, &c.* London: James Young, for Octavian Pulleyn, 1653.

8° (170 x 102 mm). Collation: A^8 a^8 $¶^8$ B-Z^8 Aa-Nn^8. 304 leaves (first and last blank). Engraved frontispiece portrait by William Faithorne (1616-1691), signed "W:F: fec:," after the portrait, ascribed to Cornelius Janssen (1590-1664), in the possession of the Royal College of Surgeons. (Some browning.) Contemporary English calf (folds trimmed away and textblock oversewn, rebacked). *Provenance*: W. Stonehouse, purchased for 14s/4d (inscription on title page); "1706 cost 10d" (inscription on frontispiece); author's name and "London 1723 York" lettered on flyleaf.

FIRST EDITION IN ENGLISH. The chapter on parturition was the first original work on the subject by an Englishman. According to Keynes, "many copies of the book lack the engraving, and many have never contained it." *Heirs of Hippocrates* 439; Keynes *Harvey* 43; NLM/Krivatsy 5351; Osler 714; Waller 4126; Wellcome III, p. 220; Wing H-1085; Norman 1012.

Estimate: $3,000-4,000

○506

HARVEY, William (1578-1657). *The anatomical exercises of Dr. William Harvey ... concerning the motion of the heart and blood.* - Zachariah SYLVIUS (1608-1664). *The preface ... upon the anatomical exercises of Doctor William Harvey.* - Jacobus de BACK (1593/4-1658), *The Discourse.* - William HARVEY. *Two anatomical exercitations concerning the circulation of the blood.* London: Francis Leach, for Richard Lowndes, 1653.

8° (152 x 95 mm). Collation: $*^8$(-1 blank, ±2) $**^8$ $***^4$ A-X^8 Y^4, 191 leaves. With the cancel title leaf. Ornamental woodcut initials, woodcut or typographical headpieces. (Cropped touching headlines on ca. 10 pages.) Contemporary English calf (rebacked retaining original backstrip).

Provenance: "Dr. Harvey" lettered on fore-edge; British Medical Association Library (ink stamps on endleaves).

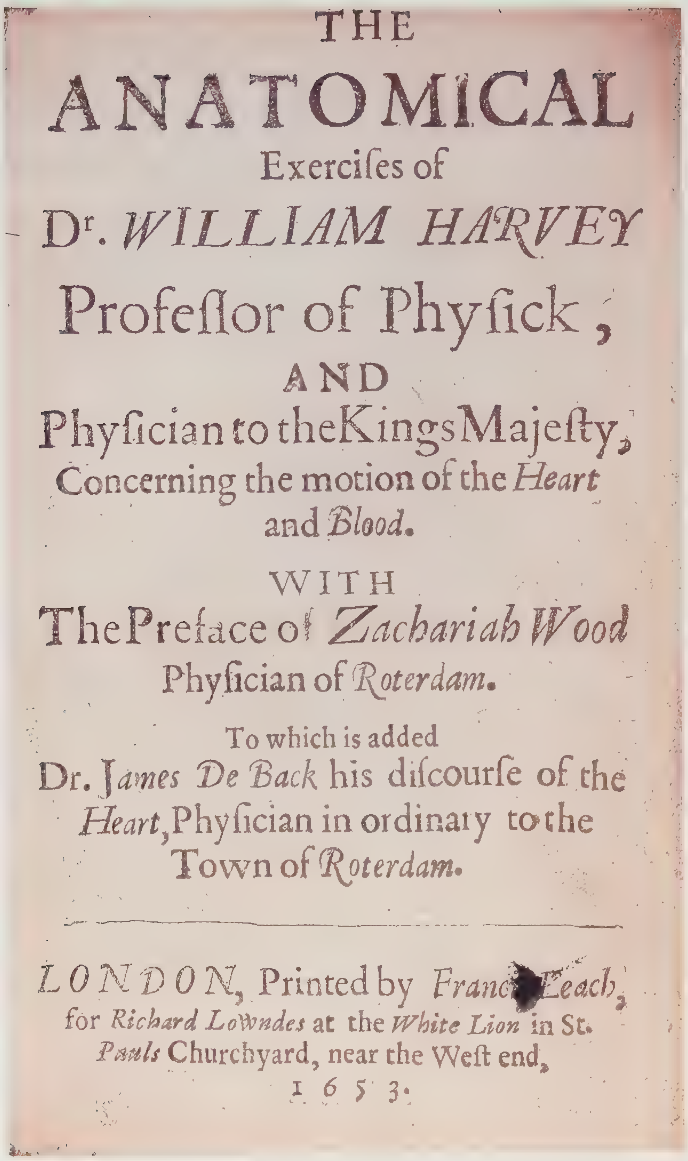
FIRST EDITION IN ENGLISH of Harvey's *De motu cordis* presenting his discovery of the circulation of the blood. This translation, described by Keynes as "a vigorous, if unpolished, version of Harvey's book in contemporary language," was derived from the Latin edition published by Arnold Leers in Rotterdam in 1648, and includes the commentary by Zachariah Wood and James de Back printed there. To this was added a translation of Harvey's *Exercitationes duae anatomicae de circulatione sanguinis*, in which he defended his theory against the criticisms of Jean Riolan. This text was published by Leers in 1649 (see lot 503, a copy of the two Leers editions bound together). According to Keynes, most copies of this edition, like the present one, have a cancel title-leaf. The cancellandum and cancellans title pages were printed from the same setting of type and are identical except for the omission of a rule from the latter, but the verso of the cancel title is blank, without verses in praise of Harvey by Zachariah Wood. *Heirs of Hippocrates* 422; Keynes *Harvey* 19; Osler 7698; NLM/Krivatsy 5338 (with the cancel title); Waller 4105; Wellcome III, p.219; Wing H-1083; Norman 1008.

[*With*:]

HARVEY, William. *La circulation du sang: des mouvements du coeur chez l'homme et chez les animaux. -Deux réponses à Riolan.* Translated from Latin into French by Charles Richet. Paris: G. Masson, 1879. Two lithographic plates, text illustrations. Red half-morocco. *Provenance*: Charles-Adolf Würtz (1817-1884), chemist and professor (translator's presentation inscription on half-title). First edition in French. Keynes *Harvey* 28; Norman 1009.

(2)

Estimate: $15,000-20,000



THE

ANATOMICAL

Exerciſes of

Dr. *WILLIAM HARVEY*

Profeſſor of Phyſick,

AND

Phyſician to the Kings Majeſty,

Concerning the motion of the *Heart*

and *Blood*.

WITH

The Preface of *Zachariah Wood*

Phyſician of *Roterdam*.

To which is added

Dr. *James De Back* his diſcourſe of the

Heart, Phyſician in ordinary to the

Town of *Roterdam*.

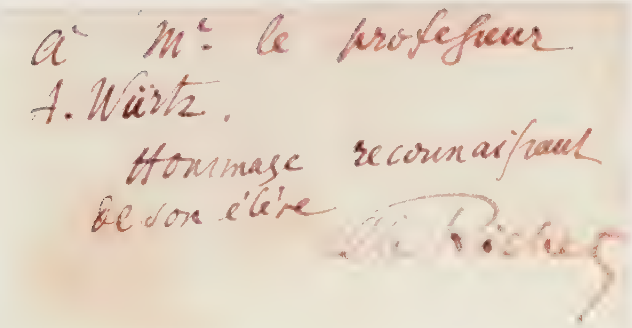
LONDON, Printed by *Franc*[illegible] *Leach*,

for *Richard Lowndes* at the *White Lion* in St.

Pauls Churchyard, near the Weſt end,

1653.

506 (actual size)



à Mr le professeur

A. Würtz.

Hommage reconnaissant

de son élève

506 (detail part lot)

507

HARVIE, John (fl. 18th century). *Practical Directions, shewing a Method of preserving the Perinaeum in Birth, and Delivering the Placenta without violence. Illustrated by Cases.* London: D. Wilson and G. Nicol, 1767.

8° (203 x 124 mm.) Modern half calf; cloth folding case. *Provenance:* Miles H. Phillips (signature on front free endpaper).

FIRST EDITION. "Harvie, Smellie's successor, advocated external expression of the placenta instead of traction on the cord, anticipating Credé in this connection by almost a century" (Garrison-Morton 6156). Waller 4133; Wellcome III, p.221; Norman 1013.

Estimate: $1,000-1,500

508

HASLAM, John (1764-1844). *Observations on Insanity: With practical remarks on the disease, and an account of the morbid appearances on dissection.* London: F. and C. Rivington and J. Hatchard, 1798.

8° (223 x 142 mm). Modern wrappers, uncut.

FIRST EDITION. Haslam worked as a medical officer at Bethlehem Hospital, the largest asylum in England, where he had the opportunity to study a large number of patients. *Observations on Insanity* is a study of 29 cases among which Haslam recorded three cases of general paralysis. Garrison-Morton 4794; Waller 4134; Wellcome III, p.221; Norman 1014.

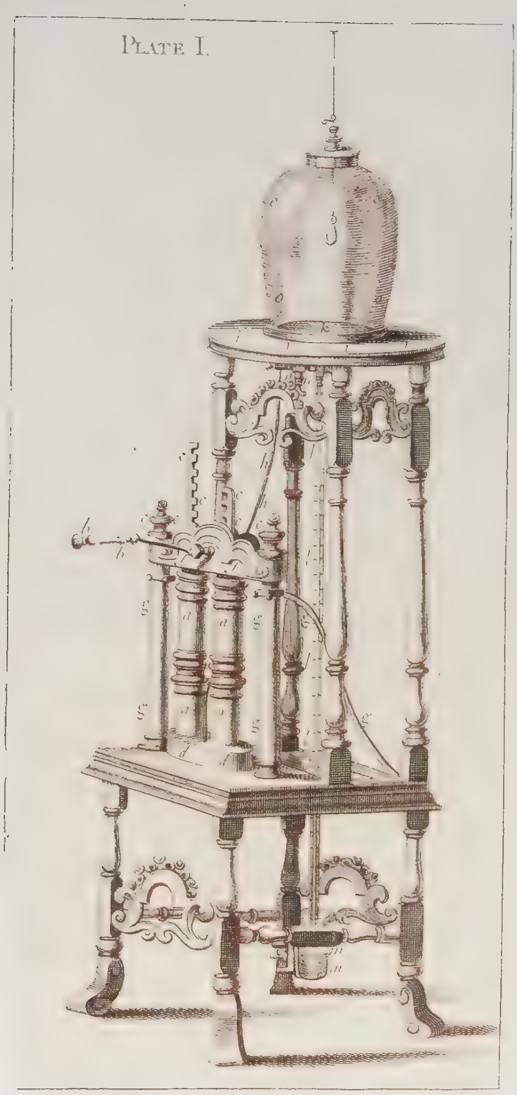
Estimate: $800-1,200

509

HASLAM, John (1764-1844). *Observations on Madness and Melancholy: including practical remarks on those diseases; together with cases: and an account of the morbid appearances on dissection.* London: G. Hayden for J. Callow, 1809. 8° (225 x 148 mm). Contemporary boards, uncut (spine worn). Second edition. Haslam considered the enlarged second edition of his *Observations on insanity* to be his magnus opus. *Heirs of Hippocrates* 1203; Waller 4135; Norman 1015. — HASLAM. *Illustrations of Madness: exhibiting a singular case of insanity, and a no less remarkable difference in medical opinion...* London: G. Hayden for Rivington, Robinson, Callow, Murray, and Greenland, 1810. 8° (220 x 136 mm). Engraved folding plate by J. Hawkesworth after James Tilly Matthews. Contemporary boards (rebacked). FIRST EDITION. The first medical book devoted to a single case of insanity and the first to illustrate an "influencing machine," commonly complained of by paranoid patients. Garrison-Morton 4924.1; Norman 1016. — HASLAM. *A Letter to the Right Honorable the Lord Chancellor, on the nature and interpretation of unsoundness of mind, and imbecility of intellect.* London: Hunter, 1823. 8° (222 x 141 mm). Disbound. *Provenance:* Sharon Turner (presentation iscnription from the author). PRESENTATION COPY OF THE FIRST EDITION. Norman 1018. — HASLAM. *Sound Mind; or, contributions to the natural history and physiology of the human intellect.* London: Longman, Hurst, Rees, Orme, and Brown, 1819. 8° (212 x 128 mm). Contemporary half calf (rebacked). *Provenance:* Norwich & Norfolk United Medical Book Society (bookplate and ink stamp). FIRST EDITION. Wellcome III, p.221; Norman 1017.

(4)

Estimate: $1,000-1,500



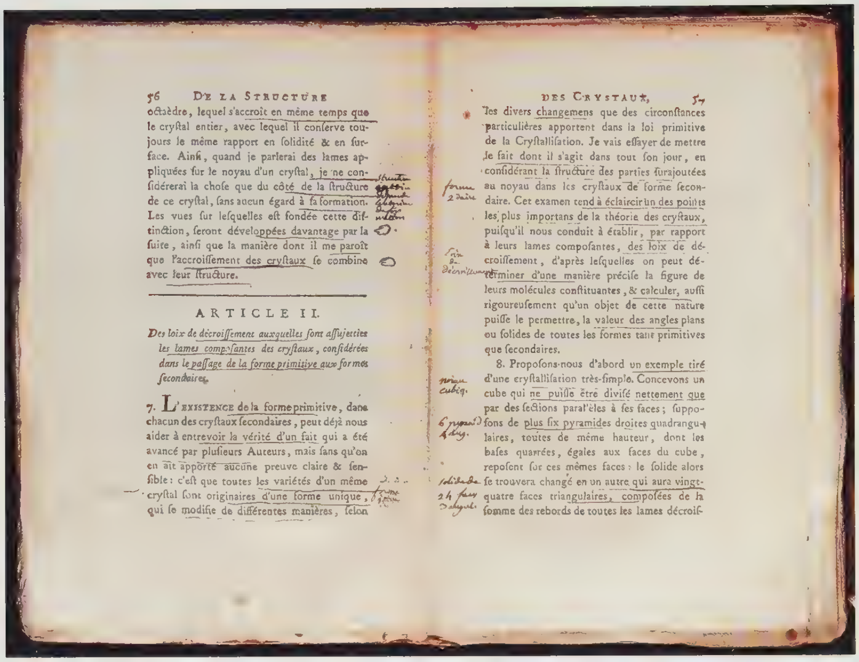
510

HAUKSBEE, Francis (ca. 1666-1713). *Physico-Mechanical Experiments on Various Subjects. Containing an Account of several Surprizing Phenomena touching Light and Electricity.* London: R. Brugis, for the Author, 1709.

4° (200 x 149 mm). Inserted engraved plate between pp. 160/161, 7 folding engraved plates. Contemporary calf gilt (spine ends and extremities a little worn). *Provenance*: Denis Duveen (bookplate).

FIRST EDITION OF "ONE OF THE MOST IMPORTANT EARLY WORKS ON ELECTRICITY" (Duveen). Hauksbee was indebted to Isaac Newton for some of his theoretical ideas, while the results of his important experiments in electroluminescence, static electricity and capillarity in turn influenced Newton's revisions and additions to the new editions of his *Principia* and *Opticks*. He was the first to demonstrate the optical effects produced by the passage of electricity through rarified air. "His demonstration of the efficacy of glass in producing frictional electricity opened the way for the work of Gray, Dufay and Franklin, and his discoveries in capillarity ... influenced Laplace nearly one hundred years later" (Norman). Duveen, pp. 281-82; Wellcome III, p.224; Wheeler Gift 232; Norman 1020.

Estimate: $4,000-6,000



56 De la Structure

octaèdre, lequel s'accroît en même temps que le cryſtal entier, avec lequel il conſerve toujours le même rapport en ſolidité & en ſurface. Ainſi, quand je parlerai des lames appliquées ſur le noyau d'un cryſtal, je ne conſidérerai la choſe que du côté de la ſtructure de ce cryſtal, ſans aucun égard à ſa formation. Les vues ſur leſquelles eſt fondée cette diſtinction, ſeront développées davantage par la ſuite, ainſi que la manière dont il me paroît que l'accroiſſement des cryſtaux ſe combine avec leur ſtructure.

ARTICLE II.

Des loix de décroiſſement auxquelles ſont aſſujetties les lames compoſantes des cryſtaux, conſidérées dans le paſſage de la forme primitive aux formes ſecondaires.

7. L'EXISTENCE de la forme primitive, dans chacun des cryſtaux ſecondaires, peut déjà nous aider à entrevoir la vérité d'un fait qui a été avancé par pluſieurs Auteurs, mais ſans qu'on en ait apporté aucune preuve claire & ſenſible : c'eſt que toutes les variétés d'un même cryſtal ſont originaires d'une forme unique, qui ſe modifie de différentes manières, ſelon

des Crystaux, 57

les divers changemens que des circonſtances particulières apportent dans la loi primitive de la Cryſtalliſation. Je vais eſſayer de mettre le fait dont il s'agit dans tout ſon jour, en conſidérant la ſtructure des parties ſurajoutées au noyau dans les cryſtaux de forme ſecondaire. Cet examen tend à éclaircir un des points les plus importans de la théorie des cryſtaux, puiſqu'il nous conduit à établir, par rapport à leurs lames compoſantes, des loix de décroiſſement, d'après leſquelles on peut déterminer d'une manière préciſe la figure de leurs molécules conſtituantes, & calculer, auſſi rigoureuſement qu'un objet de cette nature puiſſe le permettre, la valeur des angles plans ou ſolides de toutes les formes tant primitives que ſecondaires.

8. Propoſons-nous d'abord un exemple tiré d'une cryſtalliſation très-ſimple. Concevons un cube qui ne puiſſe être diviſé nettement que par des ſections parallèles à ſes faces ; ſuppoſons de plus ſix pyramides droites quadrangulaires, toutes de même hauteur, dont les baſes quarrées, égales aux faces du cube, repoſent ſur ces mêmes faces : le ſolide alors ſe trouvera changé en un autre qui aura vingt-quatre faces triangulaires, compoſées de la ſomme des rebords de toutes les lames décroiſ-

forme 2daire

noiau cubiq.

6 pyramid. 4 ang.

solide de 24 faces 3angul.

511

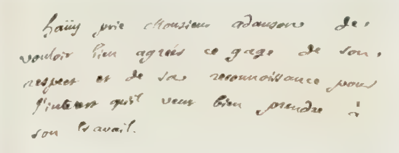
HAÜY, René-Just (1743-1822). *Essai d'une théorie sur la structure des crystaux, appliquée à plusieurs genres de substances crystallisées.* Paris: Chez Gogué & Née de la Rochelle, 1784.

8° (212 x 140 mm). Lacking the 8 folding engraved plates. Original marbled wrappers, uncut.

Provenance: MICHEL ADANSON (1727-1806), scientist and botanical taxonomist (presentation note from the author mounted inside front wrapper which reads: "Haüy prie Monsieur Adanson de vouloir bien agréer ce gage de son respect et de sa reconnoissance pour l'interêt qu'il veut bien prendre à son travail"; Adanson's signature and notation "collationé Adanson 1785," his underlinings and marginalia throughout); E.D (stamp on title-page); John Burke, historian of crystallography (see Norman).

FIRST EDITION. PRESENTATION COPY TO THE SCIENTIST MICHEL ADANSON OF HIS FOUNDATION WORK ON THE MATHEMATICAL THEORY OF CRYSTAL STRUCTURE. Haüy undertook botanical studies at the Collège de Navarre in Paris before attending Daubenton's lectures on mineralogy at the Jardin du Roi, when his interest soon turned to mineralogy. His first publications were favorably reviewed by Daubenton and Bezout and led to his election as an associate member of the botanical class of the Academy in 1783.

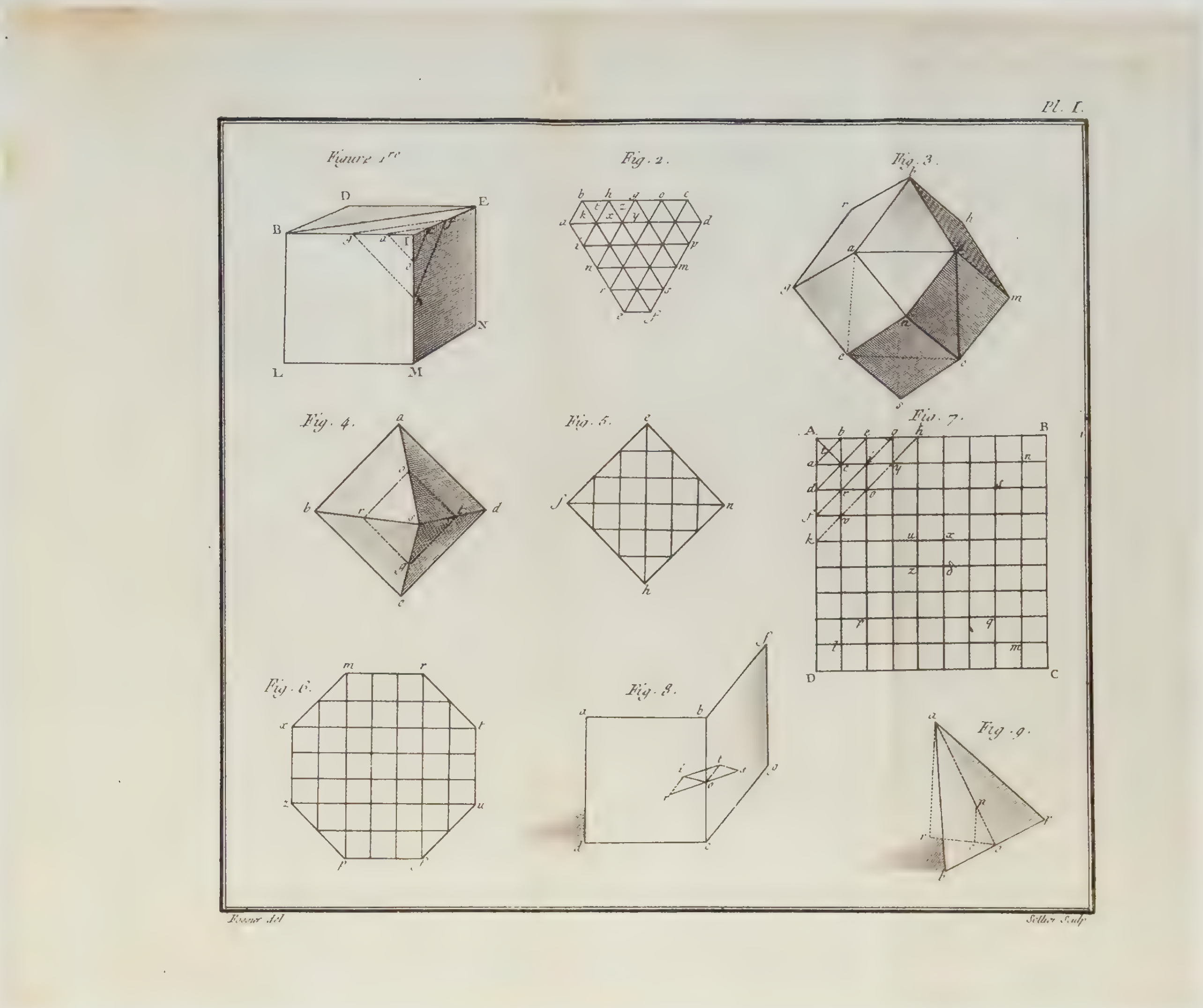
Published in 1784, Haüy's *Essai d'une théorie sur la structure des crystaux*, laid the foundation of the mathematical theory of crystal structure. Haüy proposed six types of primary crystal forms in this work and agrued that the primitive form or "nucleus" was a mathematical concept rather than a physical reality. He proposed the theory of the crystal molecule, and recognized varieties of a crystal species are limited—the discontinuity principle. He derived secondary forms theoretically by stacking layers of molecules on the faces of the nucleus, enunciating the laws of decretement (reduction of each successive layer) and symmetry that regulate their growth. Haüy's law of decretement led his successors directly to the law of rational indices, or what is often referred to as "Haüy's law."



haüy prie Monsieur adanson de
vouloir bien agréer ce gage de son
respect et de sa reconnoissance pour
l'interest qu'il veut bien prendre à
son travail.

AN IMPORTANT ASSOCIATION COPY. Burke, pp. 82-106; Dibner *Heralds of Science* 92; Grolier/Horblit 47; Wellcome III, p.224; Norman 1021.

Estimate: $3,000-4,000



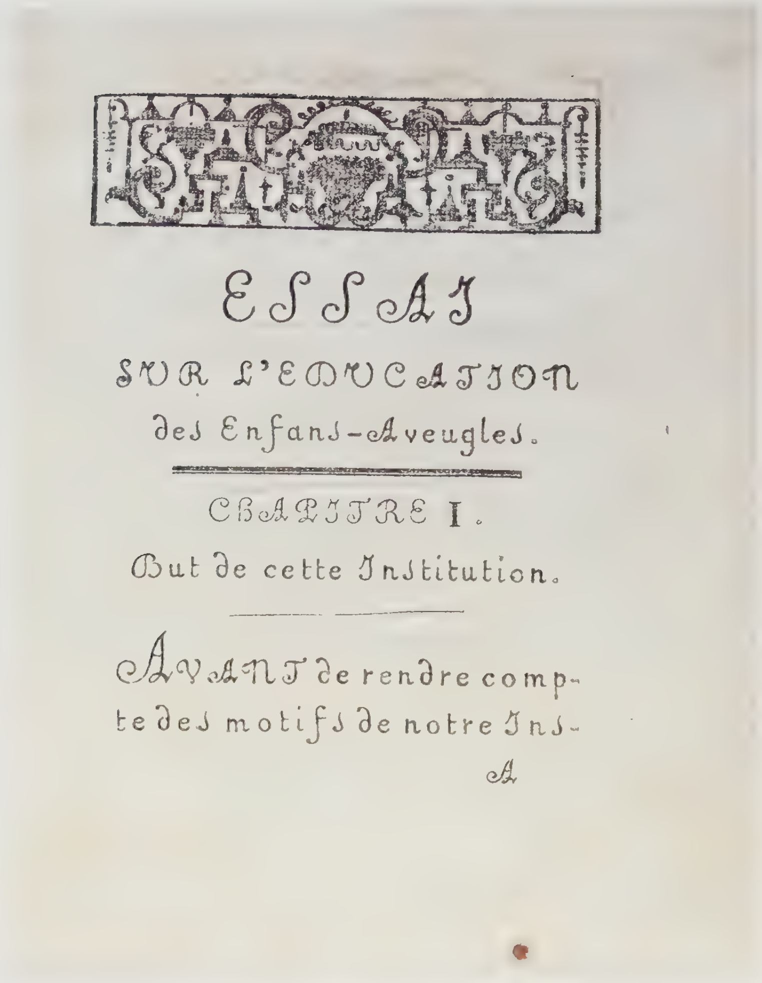
›512

HAÜY, René-Just (1743-1822). *Essai d'une théorie sur la structure des crystaux, appliquée à plusieurs genres de substances crystallisées.* Paris: Chez Gogué & Née de la Rochelle, 1784.

8° (203 x 127 mm). 8 folding engraved plates. (Some minor pale dampstaining at end, mostly marginal.) 19th-century calf-backed marbled boards, spine gilt (some minor wear to edges). *Provenance*: Stanislas Meunier (ink stamp on title-page margin); Nils Zenzén (signature and purchase note on front free endpaper dated 1926).

FIRST EDITION OF THE FOUNDATION OF THE MATHEMATICAL THEORY OF CRYSTAL STRUCTURE. Dibner *Heralds of Science* 92; Grolier/Horblit 47 ("enunciated 'Haüy's law of rational indices' of the faces of crystals"); Wellcome III, p.224; Norman 1022.

Estimate: $2,000-3,000



ESSAI

SUR L'EDUCATION

des Enfans-Aveugles.

CHAPITRE I.

But de cette Institution.

AVANT de rendre compte des motifs de notre Ins-

A

513

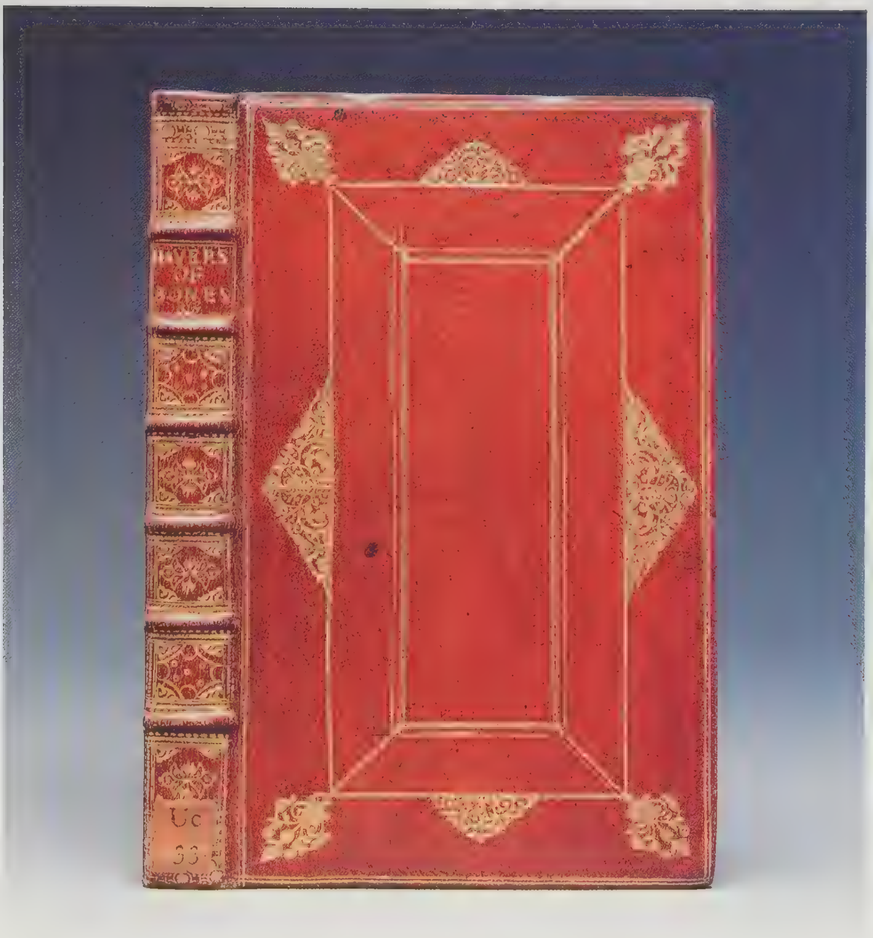
HAÜY, Valentin (1745-1822). *Essai sur l'éducation des aveugles*. Paris: les Enfans-Aveugles, under the direction of the royal printer, M. Clousier, 1786.

4° (246 x 193 mm). Type specimen overslip as frontispiece with text in two types (one displays Haüy's embossed italic type). Contemporary French mottled sheep, spine gilt (head of spine chipped, surface skinned in a few places on rear cover).

FIRST EDITION OF THE FIRST PRINTED BOOK INTENDED TO BE READ BY THE BLIND. Valentin Haüy, the younger brother of René-Just Haüy, founded the first school for the blind, the Institution Nationale des Jeunes Aveugles. Haüy's mission was to teach the blind to read, write, and play music, and his revolutionary teaching methods are described in his *Essai sur l'education des aveugles*. Using a special large and a uniquely formed italic type, Haüy devised a method of embossing the letters on single sides of the sheets which were then pasted together and gathered. The raised letters could be traced with the fingers thus allowing the blind to "read." This work displayed "his system of printing for the blind while at the same time proving its efficacy, since the book was printed by Haüy's blind students under the direction of the royal printer Clousier. The majority of the book is printed in Haüy's raised italic types (inked for the convenience of sighted persons)" (Norman).

The type specimen frontispiece reads in ordinary inked roman letters: "Tout ceci est miraculeux," and reads below in Haüys embossed italic: "Ceci est merveilleux." VERY RARE. Garrison-Morton 5833 ("originated modern methods of teaching and caring for blind persons"); Norman 1023.

Estimate: $1,000-1,500



ɔ514

HAVERS, Clopton (ca. 1655-1702). *Osteologia nova, or some new observations of the bones, and the parts belonging to them, with the manner of their accretion, and nutrition.* London: for Samuel Smith, 1691.

8° (182 x 112 mm). Two engraved plates, one folding, with the imprimatur leaf A1 and advertisement leaf U4. (Occasional light foxing, a few leaves discolored.) Contemporary English red morocco, covers with double gilt panel, the outer panel with vase tools at corners and arabesque tooling at the center of each side, spine gilt, gilt edges, manuscript title on lower edges (trifling wear to extremities); half morocco folding case. *Provenance*: Possibly authorial manuscript corrections on D3r, E2v and Q5r, each crossing out and replacing a word; bound for the dedicatee Thomas Herbert, eighth Earl of Pembroke (1656-1733) (printed Wilton House shelf label at foot of spine).

FIRST EDITION, THE DEDICATION COPY, of the first complete and systematic study of the structure of bones. The text, a transcription of five lectures delivered to the Royal Society in 1689 and 1690, contains the first full description of the microscopic structure of the bone lamellae and canals for the passage of blood, named thenceforth the Haversian canals. Havers also contributed important observations on bone physiology and the process of bone growth, correcting Glisson's theory that bones grow on their harder side when they develop unevenly in rickets. His book, of which a Latin translation was published the following year, was immediately useful and received great praise. It remained the only detailed treatise on bone until the publication of Robert Nesbitt's lectures in 1763, and was only superseded in the 19th century.

Garrison-Morton 387; NLM/Krivatsy 5363; Wellcome III, p.225; Wing H-1162; Norman 1024.

Estimate: $7,000-9,000

›515

HAYES, Charles (1678-1760). *A Treatise of Fluxions: Or, an Introduction to Mathematical Philosophy*. London: Edward Midwinter, for David Midwinter and Thomas Leigh, 1704.

2° (302 x 192 mm). Numerous woodcut diagrams in text, one overlay mounted on verso of (a)1. (Title-page lightly soiled, minor marginal stain on title and first few preliminaries.) Contemporary English panelled calf (rebacked, corners repaired). *Provenance*: Stephen Peter Rigaud (1774-1839), Savilian Professor of astronomy at Oxford ("S. Rigaud" lettered in blind on front cover); Radcliffe Observatory, Oxford (ink stamp on pastedown and title-page).

FIRST EDITION OF THE FIRST PRINTED BOOK ON CALCULUS IN ENGLISH. "This is the first English work explaining Newton's infinitesimals and applying his method to obtain the tangents of curves, then their areas, and lastly, the problems of maxima and minima" (Babson/Newton). Babson/Newton 175; Norman 1026.

Estimate: $1,500-2,500

›516

HELMONT, Joannes Baptista van (1579-1644). *Ortus medicinae. Id est, initia physicae inaudita. Progressus medicinae novus, in morborum ultionem ad vitam longam*. Edited by Franciscus Mercurius van Helmont (1618-1699) - *Opuscula medica inaudita. I. De lithiasi. II. De febribus. III. De humoribus Galeni. IV. De peste. Editio secunda multo emendatior.* Amsterdam: Ludovic Elzevier, 1648.

4° (199 x 152 mm). Contemporary sheep, rebacked, retaining original gilt spine. *Provenance*: J.J. Delaforte, D.M.F (signature on pastedown and title); P. Hewinck (signature on title).

FIRST EDITION of *Ortus medicinae*; second edition of *Opuscula medica inaudita*. Helmont, dissatisfied with the "useless logic" of traditional learning, pursued knowledge of the first principles of nature through experimentation. Like Paracelsus, whom he followed, his search was universal: "He sought a cosmological system and a unified view of natural science which would embrace all phenomena" (PMM). Despite the elements of mysticism in his works, he achieved considerable advances in chemistry - being the first to use the term "gas" and to distinguish between different gases - and medicine, as a founder of the modern ontological concept of disease. Helmont "stands at the very begining of the chemical revolution" (PMM); his works contain both elements of alchemy, such as an account of the transmutation of the "alchemist's stone", and scientific ideas, many of which Robert Boyle adopted and developed. Garrison-Morton 665; *Heirs of Hippocrates* 409; NLM/Krivatsy 5442; Osler 2929; PMM 135; Waller 4307; Wellcome III, p.241; Norman 1048.

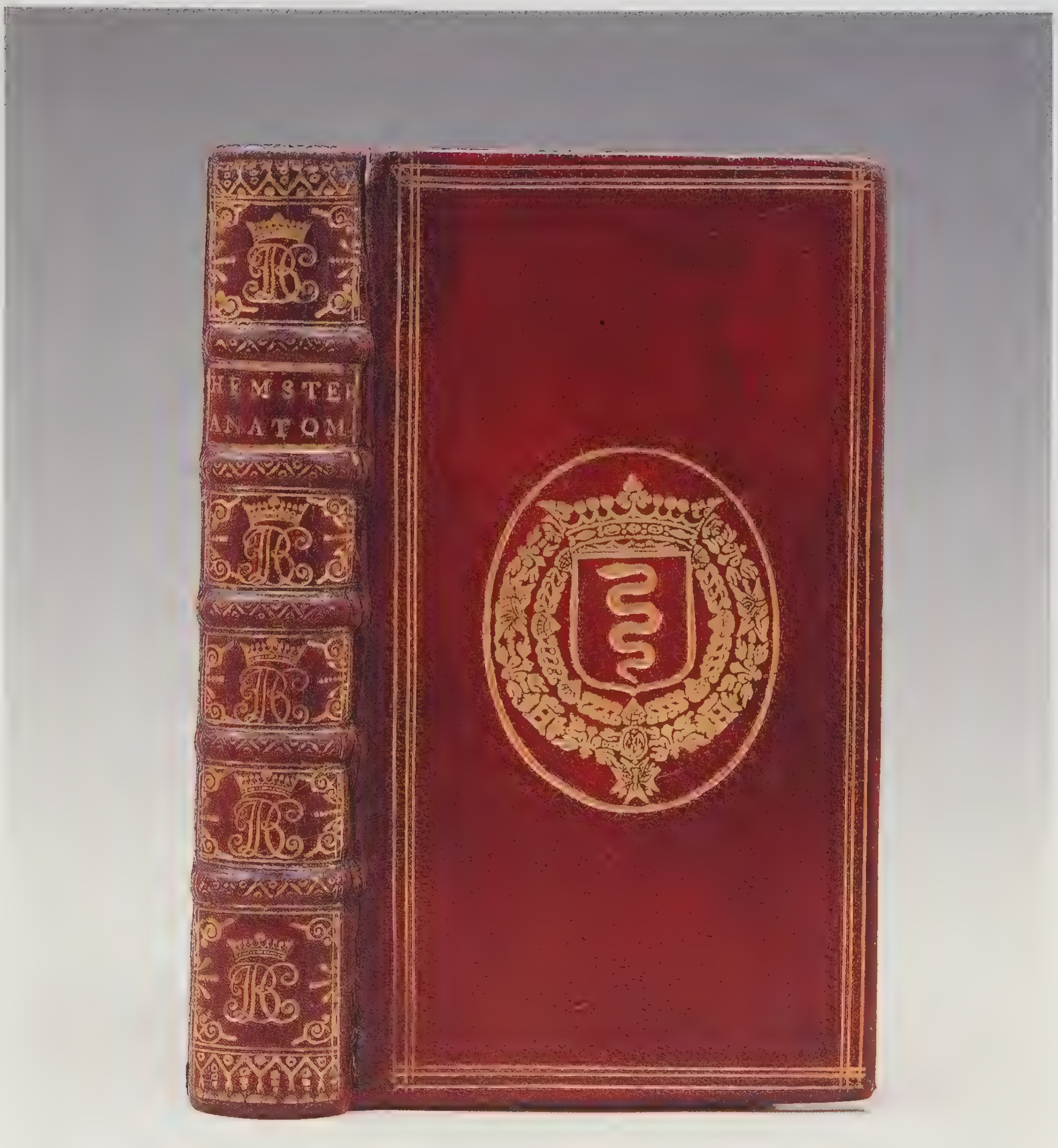
Estimate: $2,000-3,000

›517

HEMSTERHUIS, Siboldus, *editor* (b. 1629). *Messis aurea triennalis, exhibens; anatomica: novissima et utilissima experimenta*. Edited by Hemsterhuis. Leiden: Adriaan Wyngaerden, 1654.

12° (129 x 72 mm). 6 engraved plates, including 5 folding. (Some minor marginal browning.) 17th-century French red morocco, covers with triple-fillet borders and central gilt arms of Jean Baptiste Colbert, spine in six compartments with five raised bands, gilt-lettered in one, a repeated gilt panel in the rest containing the Colbert's gilt monogram "JBC" surmounted by a crown.

Provenance: Jean Baptiste Colbert (1619-1683), Minister of Finance under Louis XIV and one of the greatest bibliophiles of the 17th century, with his arms and monogram on binding as above, "Bibliotheca Colbertina" (17th-century inscription on upper margin of title-page); P. Grandsire (bookplate).



(actual size)

FIRST EDITION of a collection of works on the lymphatics edited by Sibout Hemsterhuis. It contains reprints of Jean Pecquet's *Experimenta nova anatomica* (first published 1651; see lot 710), Thomas Bartholin's *De lacteis thoracicis dubia anatomica* and Vasorum lymphaticorum historia nova, and Olof Rudbeck's *Nova exercitatio anatomica, exhibens ductus hepaticos aquosos et vasa glandularum serosa* (first published 1653; see lot 760). BM/STC *German* 17th c., H-815; NLM/Krivatsy 5486; Norman 1049.

Estimate: $1,500-2,500

518

HEVELIUS, Johannes (1611-1687). *Mercurius in sole visus Gedani, anno christiano MDCLXI... cui annexa est Venus in sole pariter visa, anno 1639... Liverpoliae, a Jeremia Horroxio, nunc primum edita.* Danzig: Simon Reiniger for the author, 1662.

2° (352 x 224 mm.), 94 leaves. Engraved allegorical title vignette after A. Boy, 10 engraved plates by Hevelius, letterpress tables, woodcut and type-ornament head- and tail-pieces and initials. (2 leaves browned, occasional light foxing at end.) Bound with 4 other works by Hevelius (see below) in contemporary mottled calf, spine gilt, title "I. Hevel Tract varii" gilt lettered iin second compartment, edges red-stained (discreet restoration to upper joint and head and tailcaps, board edges rubbed with slight loss to leather at corners). *Provenance*: "Mme. Veuve Courcier, "Imprimeur-Libraire pour les Sciences," Paris (early 19th-century typographical bookseller's label on front pastedown).

Hevelius' observations of the transit of Mercury on 3 May 1661, followed by the first published description of the important observations by the short-lived English astronomer Jeremiah Horrocks (1618-1641) of the transit of Venus of 24 November 1639, with supplementary notes by Hevelius. Horrocks was the first astronomer to observe a transit (or conjunction with the sun) of Venus, an event that he had predicted through close study and correction of Kepler's tables. His observations enabled him to make the first accurate calculations of the diameter of Venus and of the constants of its orbit. This was the first of any of Horrock's manuscripts to be published.

The final portion of the work contains a description and ephemerides of a new star (probably a nova) in the "neck" of the constellation Cetus, first observed in 1638, and a description of unusual optical occurrences observed by Hevelius in 1660 and 1661, including a paraselene (or mock moon), and a parhelion (or mock sun). Norman 1067. [*Bound with*:]

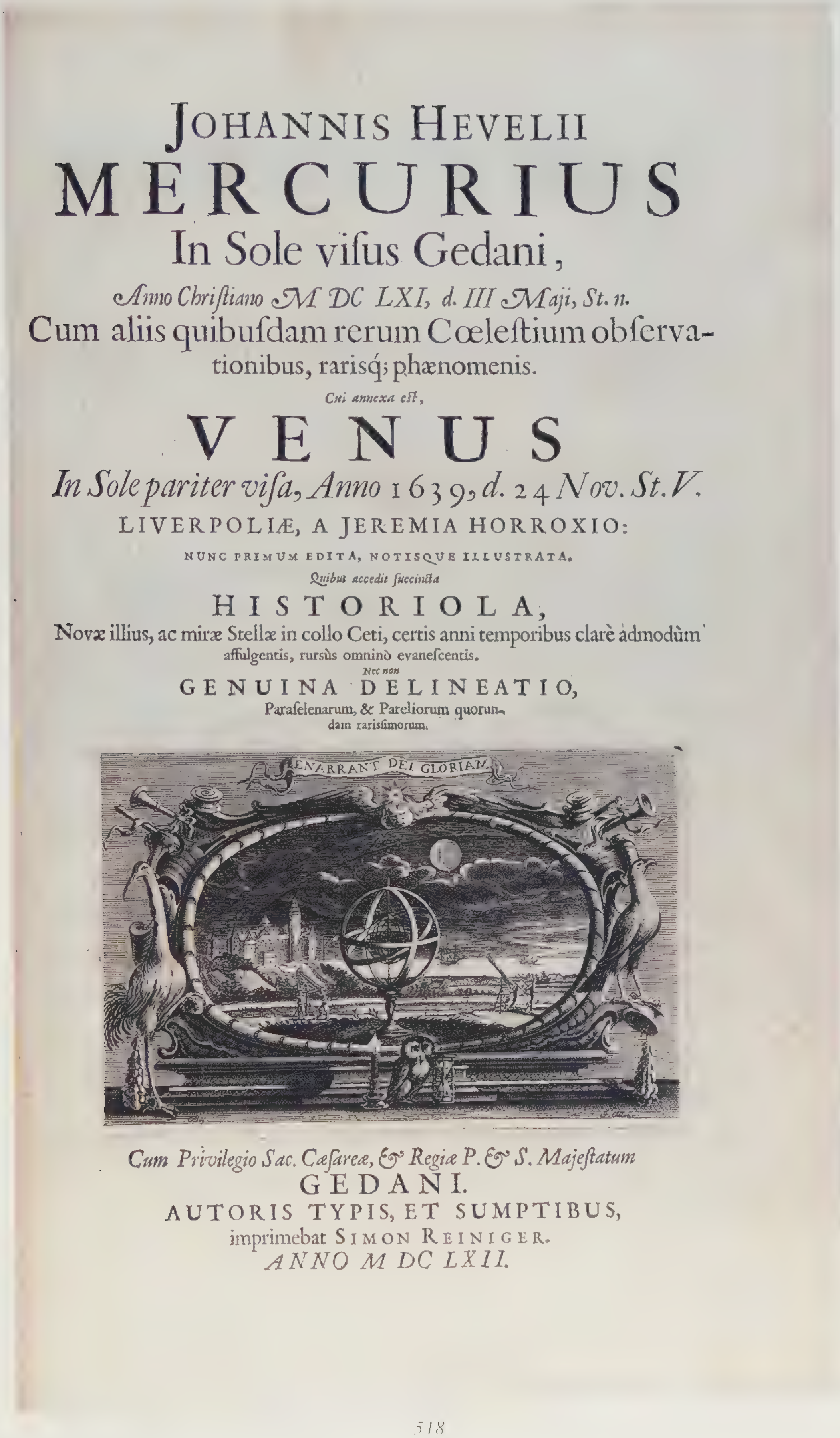
HEVELIUS. *Epistolae II. Prior: de motu lunae libratorio, in certas tabulas redacto... Posterior: de utriusque luminaris defectu anni 1654.* Danzig: Andreas Julius Moller for the author, 1654. 2° (352 x 224 mm), 37 leaves. Engraved title vignette (as above), 6 engraved plates by Hevelius, including a double-page plate from the *Selenographica* (1647), one engraved diagram in text, letterpress astronomical tables, woodcut initials. (Title slightly soiled, double-page plate browned). A continuation of Hevelius's analyses of the libration of the moon, commenced in his great lunar atlas, the *Selenographia* (1647). "Hevelius' descriptions of a librational cycle of shadow changes in the lunar details, his method of judging the libration by means of changes in the apparent (telescopic) separation of a pair of lunar details, and his introduction of rudimentary lunar coordinate systems provided a sound basis for the work of subsequent astronomers" (DSB). Norman 1065.

[*Bound with*:]

HEVELIUS. *Dissertatio, de nativa Saturni facie, ejusque variis phasibus, certa periodo redeuntibus.* Danzig: Simon Reiniger for the author, 1656. 2°, 24 leaves. Engraved title vignette (as above), 4 engraved plates by Hevelius, letterpress astronomical tables, woodcut initials and tailpieces. (Marginal tear to second leaf, A2-3 slightly soiled). Hevelius' observations of Saturn and his attempt to explain the cause of its mysterious "arms," first noted by Galileo in 1610. The puzzle had been solved by Christiaan Huygens that very year, though Huygens' theory of a ring was not published in full until 1659 (see lot 542). The final section contains Hevelius' observations of the solar eclipse of 26 January 1656. [*With*:] HEVELIUS. *Illustrius viris, Petro Gassendi & Ismael Bullialdo....* Danzig, 1652. 2°, 4 leaves, one full-page engraving by the author, 2 pp. letterpress tables. Contains Hevelius' observations of the solar eclipse of 8 April 1652. [*And with*:] HEVELIUS. *Excellentissimo... Laurentio Eichstadio.* Danzig, 1650. 2°, 2 leaves, including double-page table and description of the solar eclipse of 4 November 1649, one engraved plate by the author. Norman 1066.

A FINE SAMMELBAND OF IMPORTANT ASTRONOMICAL WORKS BY HEVELIUS, all FIRST EDITIONS.

Estimate: $7,000-10,000



JOHANNIS HEVELII
MERCURIUS
In Sole viſus Gedani,

Anno Chriſtiano M DC LXI, d. III Maji, St. n.
Cum aliis quibuſdam rerum Cœleſtium obſervationibus, rarisq; phænomenis.

Cui annexa eſt,

VENUS
In Sole pariter viſa, Anno 1639, d. 24 Nov. St. V.
LIVERPOLIÆ, A JEREMIA HORROXIO:
NUNC PRIMUM EDITA, NOTISQUE ILLUSTRATA.
Quibus accedit ſuccincta

HISTORIOLA,
Novæ illius, ac miræ Stellæ in collo Ceti, certis anni temporibus clarè admodùm affulgentis, rursùs omninò evaneſcentis.
Nec non

GENUINA DELINEATIO,
Paraſelenarum, & Pareliorum quorundam rariſſimorum.

Cum Privilegio Sac. Cæſareæ, & Regiæ P. & S. Majeſtatum
GEDANI.
AUTORIS TYPIS, ET SUMPTIBUS,
imprimebat SIMON REINIGER.
ANNO M DC LXII.

ɔ519

HEVELIUS, Johannes (1611-1687). *Machina coelestis pars prior; organographiam, sive instrumentorum astronomicorum omnium*. Danzig: Simon Reiniger for the author, 1673.

Large 2° (384 x 233 mm). Part 1 only (of 2). Half-title, additional allegorical engraved title by Adolf Boy after Jeremias Falck, 30 engraved plates of astronomical intruments, of which 5 double-page, by Isaak Saal after Andreas Stech, dedicatory letter to Louis XIV with engraved allegorical head- and tail-piece and engraved initial with royal insignia, woodcut initials and tail-pieces, type-ornament head-pieces. (Half-title slightly creased and with edges frayed, plate H browned, occasional light browning to text leaves). Contemporary vellum over pasteboard, title ink-lettered on spine (covers a trifle bowed); modern folding cloth case. *Provenance*: Breslau Stadtbibliothek (duplicate inkstamps on verso of engraved title).

FIRST EDITION of Hevelius' important treatise on astronomical instruments. Hevelius owed his astronomical discoveries of the physical features of the moon and planets to his technical skills in designing and constructing observational instruments. In 1649, the death of his father, a wealthy brewer of Danzig, had provided Hevelius with the wherewithal to construct what was for its short existence the best-equipped astronomical observatory in Europe. In the *Machina coeletis*, published with lavish illustrations at his own expense, he describes the techniques for constructing a great variety of open-sight instruments, including quadrants, sextants, octants and telescopes, many of very large size, as well as a helioscope (for observing sunspots and eclipses) of which he was particularly proud. "Hevelius was such a punctilious publisher of his own achievements that his chief publications give a reasonably complete picture of his work... Those chapters which were perhaps most read at the time...concerned his telecopes, their housings, and their mountings. Hevelius had been spurred on to build new telescopes after hearing of the discoveries (including that of the Orion nebula in 1656) made by Christian Huygens [who had invented the long-focus telescope]. Both men were convinced of the advantages of long-focus objectives... Hevelius carefully described his instruments with focal lengths of 30, 40, 50, 60, 70, 140, and 150 feet... The problems of mounting were immense... The longer telescopes were slung from tall masts (one of ninety feet is mentioned) and movement was effected by assistants with numerous guy ropes and pulleys... Problems of housing and storage were more easily solved by a prince than by a man of small means" (DSB). Hevelius was aided in his astronomical work by his second wife Catharina Elisabetha Koopman, 36 years his junior, who published many of his unpublished writings after his death and who is pictured in two plates of the present work.

In 1679 a fire destroyed Hevelius' house and observatory in Dansk. The second part of the *Machina coelistis*, which was largely devoted to observational data, had just been printed, and most of the sheets went up in flame: fewer than 100 copies are thought to have survived. Perhaps for the same reason, copies of the first volume are also quite rare.

A FINE COPY. Dibner *Heralds of Science* 10; Norman 1068.

Estimate: $15,000-20,000

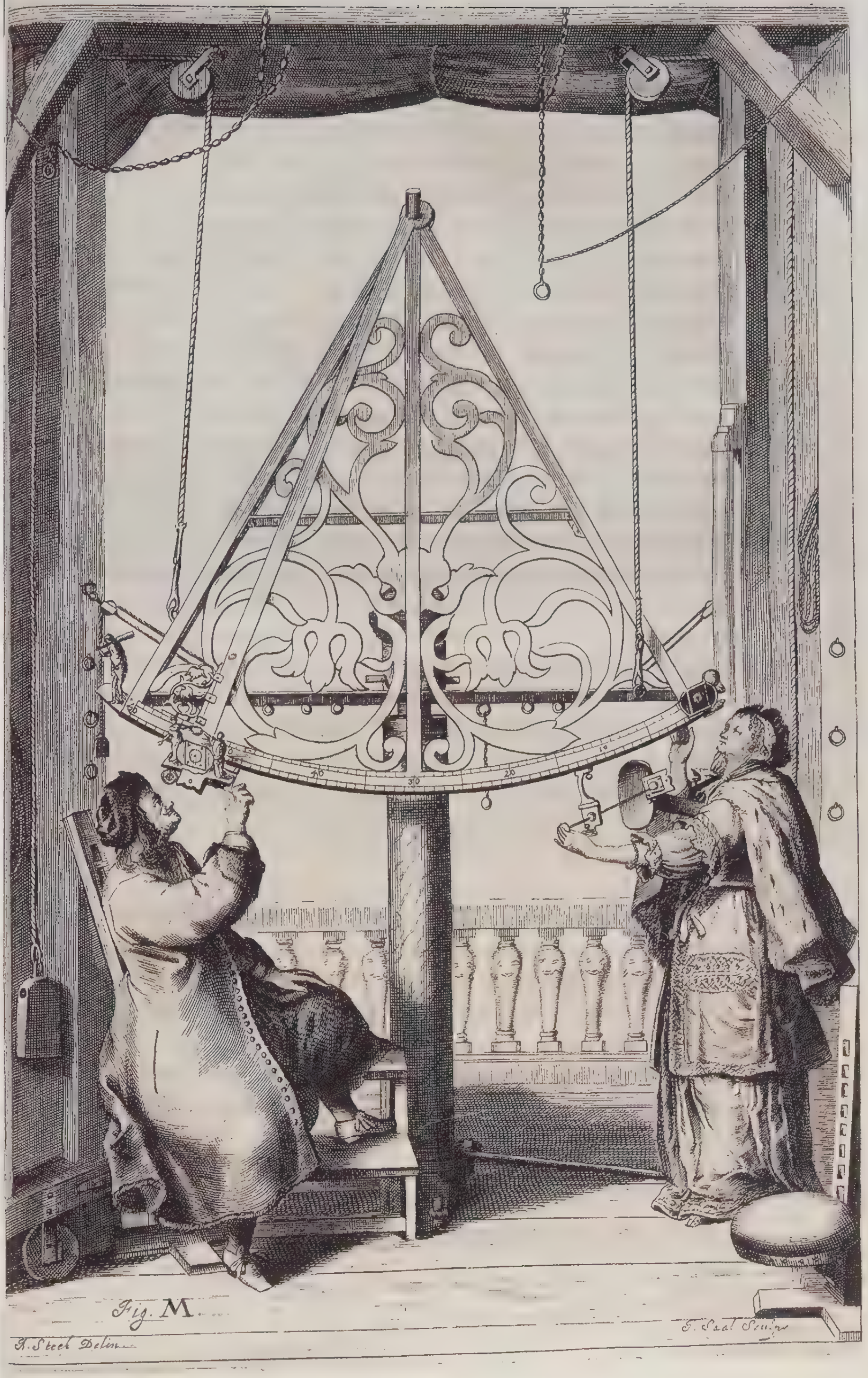


Fig. M

520

HEWSON, William (1739-1774). *Experimental enquiries: Part the first. Being a second edition of an inquiry into the properties of the blood ... and an appendix relating to the discovery of the lymphatic system in birds, fish, and the animals called amphibious -Part the second: Containing a description of the lymphatic system in the human subject and in other animals* [Vol. II]. London: T. Cadell, 1772 [Vol. I]; J. Johnson, 1774 [Vol. II].

2 volumes. 8° (201 x 122 mm [Vol. I]; 208 x 125 mm [Vol. II]). 6 engraved plates, (5 folding [Vol. I]). (Light browning in first volume and minor foxing to text in second volume). Contemporary sheep [Vol. I]; contemporary cafl [Vol. II] (both uniformly rebacked). *Provenance*: W. Moorhouse (early signature on title-page [Vol. I]); John Sheldon (1752-1808), anatomist (presentation inscription from the author on half-title, his bookplate [Vol. II]); inscription on pastedown ("Joanni Jones dono dedit Rebecca Sheldon 1809" [Vol. II]).

FIRST EDITION in book form of Vol. II; second edition of Vol. I. Hewson advanced knowledge of blood during the 1770s, when the microscope was little used because of distortions caused by compound lenses. Hewson used a single lens, and discovered a satisfactory way to mount "wet" specimens on slides, and so was able to ascertain the role of fibrogen, and give the first valid account of coagulation; to give the first account of the anatomy and production of lymphatics, and to describe clearly the three parts of the blood. Garrison-Morton 1102; Wellcome III, p.259; Norman 1069.

(2)

Estimate: $1,000-1,500

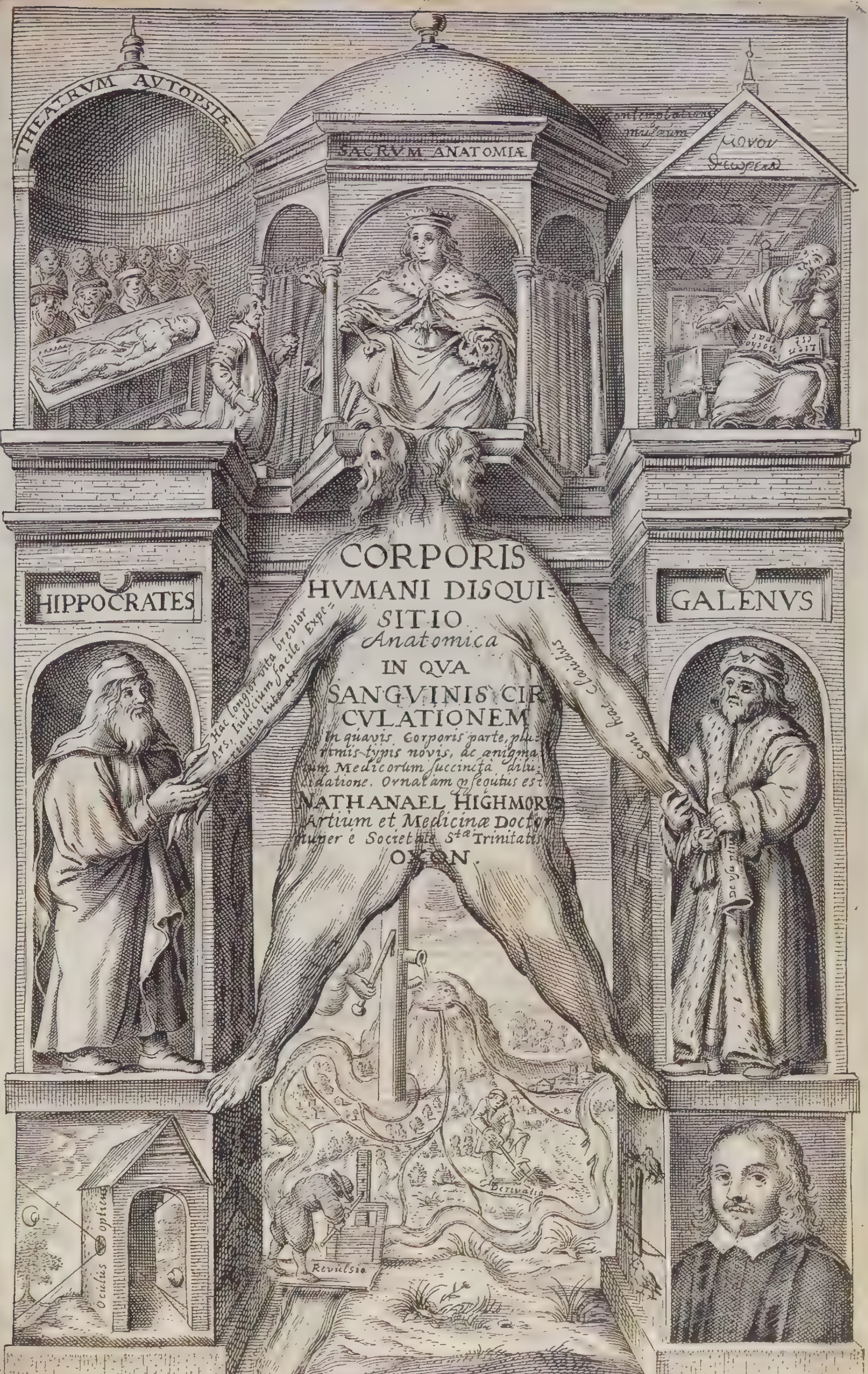
521

HIGHMORE, Nathaniel (1613-1685). *Corporis humani disquisitio anatomica; in qua sanguinis circulationem in quavis corporis particula plurimis typis novis... prosequutus est.* The Hague: Samuel Brown, 1651.

2° (286 x 186 mm). Additional engraved allegorical title, typographic explanation of engraved title on verso and typographic title printed in red and black, 18 numbered anatomical engravings of which 8 full-page (engraving 12 is an inserted plate), 2 small unnumbered engravings, woodcut head-piece and initials, with final blank leaf. (Marginal discoloration, small dampstain at head of gutter margins.) Contemporary vellum over pasteboard, later red calf lettering-pieces (a bit soiled). *Provenance*: "Ei" (inscription on engraved title); illegible 19th-century library stamps (not identical) on engraved title and A1r.

FIRST EDITION of the first English anatomy to accept William Harvey's theory of the circulation of the blood. The work is dedicated to Harvey, with whom Highmore had worked at Oxford on experiments concerning the embryonic development of the chick. The engraved title represents an allegory of the body as a well-watered garden. "Although Highmore's physiology reflects the still medieval thinking of his time, the book was accepted as a standard anatomical textbook for many years and brought the author immediate recognition in England and abroad" (DSB). Garrison-Morton 382; *Heirs of Hippocrates* 499; NLM/Krivatsy 5602; Russell 416; Waller 4456; Wellcome III, p. 263; Norman 1071.

Estimate: $3,000-4,000



CORPORIS HVMANI DISQUISITIO Anatomica

IN QVA
SANGVINIS CIRCVLATIONEM
In quavis Corporis parte, plurimis typis novis, ac ænigmatum Medicorum succinctâ dilucidatione. Ornatam ꝓſequutus est
NATHANAEL HIGHMORVS
Artium et Medicinæ Doctor
nuper è Societate Sᵗᵃ Trinitatis
OXON.

HAGÆ-COMITIS, ex officina SAMUELIS BROUN Bibliopolæ Anglici. 1651.

ɔ522

HOBBES, Thomas (1588-1679). *Leviathan, or The Matter, Forme, & Power of a Common-Wealth Ecclesiasticall and Civill.* London: printed for Andrew Crooke, 1651

Chancery 2° (283 x 185 mm). Collation: etched frontispiece, A^4 (title, author's dedication to Francis Godolphin, table of contents, errata, introduction); B-E^4 F^4(3+ fold-out sheet *Table of Subjects of Knowledge*) G-Z^4 Aa-Bb^4 (Part 1 *Of Man*, Part 2 *Of Common-Wealth*); Cc-Tt^4 (Part 3 *Of a Christian Common-Wealth*); Uu-Zz^4 Aaa-Ccc^4 (Part 4 *Of the Kingdome of Darknesse*); Ddd^4 (*A Review and Conclusion*). Woodcut head-ornament vignette on title. (Some light staining.) Contemporary English dark calf (rebacked, original gilt spine-strip laid down, corners worn).

FIRST EDITION OF THE MOST IMPORTANT 17TH-CENTURY ENGLISH WORK OF POLITICAL PHILOSOPHY. Hobbes regarded the state "as a great artificial monster made up of individual men, with an existence which could be traced from its generation through human reason under pressure of human needs to its destruction through civil strife proceeding from human passions. The individual (except to save his own life) should always submit to the State, because any government is better than the anarchy of the natural state" (PMM). Hobbes' gloomy theory of the human condition caused a storm in England and brought him much controversy, but his influence, first on Spinoza, then on Bentham and other political thinkers, has lasted into our own century. The significance of *Leviathan* has been no less valid for subsequent economic theory. The frontispiece shows the giant composite figure of Leviathan rising above a townscape and surrounding hills, smaller scenes include a battle, an ecclesiastical court, a castle, a church, and other sacred and secular emblems; the etching is very much in the style of W. Hollar. Macdonald-Hargreaves 42; Pforzheimer 491; PMM 138; Wing H-2246; Norman 1082

Estimate: $10,000-15,000

ɔ523

HOLDER, William (1616-1698). *Elements of Speech: an Essay of Inquiry into the Natural Production of Letters with an Appendix concerning Persons Deaf & Dumb.* London: T.N. for J. Martyn, 1669.

8° (174 x 114 mm). (A few pages stained.) Contemporary calf (some wear to spine ends and corners). *Provenance*: Bibl. Caes. Med. Palat. (ink stamp on title).

FIRST EDITION, includes a section on the education of deaf-mutes. Garrison-Morton 3349; NLM/Krivatsy 5935; Wellcome III, p.291; Wing H-2386; Norman 1087.

Estimate: $500-700

ɔ524

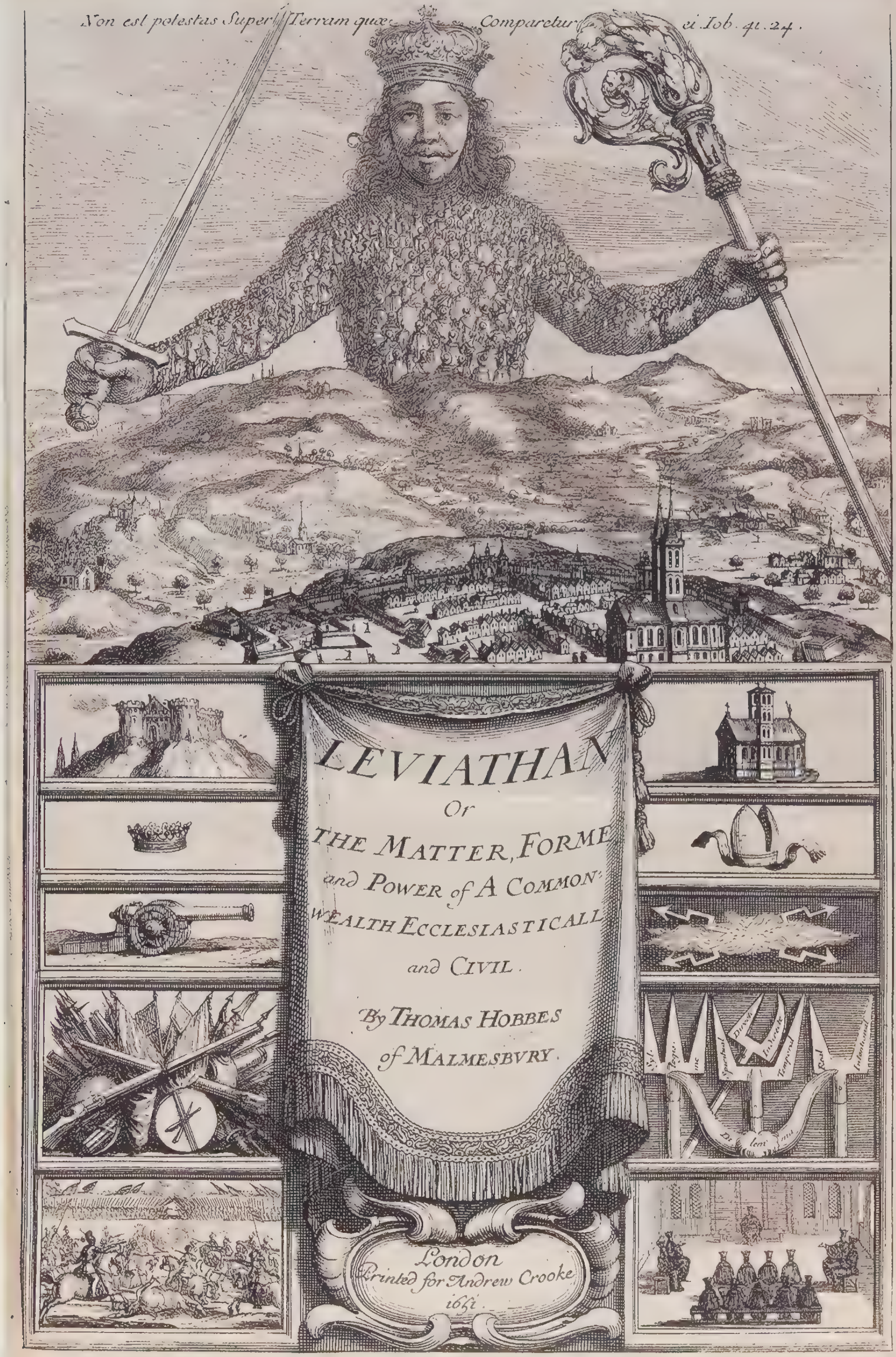
HOME, Sir Everard (1756-1832). *Lectures on Comparative Anatomy...* London: W. Bulmer for G. and W. Nicol (volumes I-II); Longman, Hurst, Reese, Orme, and Brown (vols. II-IV); Longman, Hurst, Rees, Orme, Brown and Green (vols. V-VI), 1814-1828.

6 volumes, including supplement, 4° (298 x 225 mm). Engraved portrait frontispiece and 371 engraved plates. Contemporary boards, uncut (rebacked with vellum).

FIRST EDITION. "Plagiarized from the manuscripts of John Hunter, Home's father-in-law, and of immense importance for publication of Hunter's researches. Home destroyed the original manuscripts on which his work was based after he corrected the page proofs" (Garrison-Morton). Cushing H438; Garrison-Morton 315; *Heirs of Hippocrates* 1150; Wellcome III, pp.294-5; Norman 1091.

(6)

Estimate: $1,000-1,500

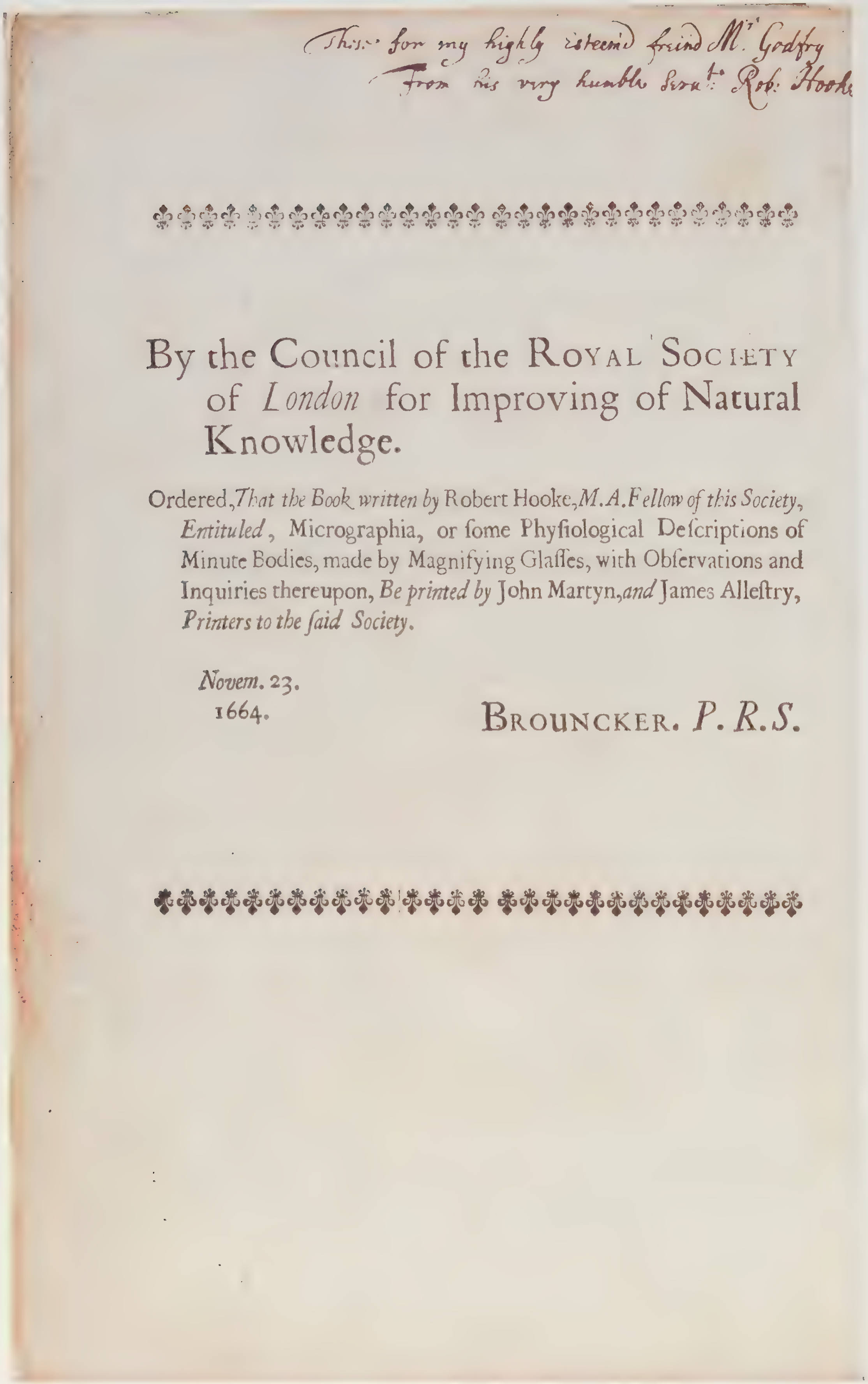


Non est potestas Super Terram quæ Comparetur ei. Iob. 41. 24.

LEVIATHAN
Or
THE MATTER, FORME
and POWER of A COMMON-
WEALTH ECCLESIASTICALL
and CIVIL.

By THOMAS HOBBES
of MALMESBURY.

London
Printed for Andrew Crooke
1651.



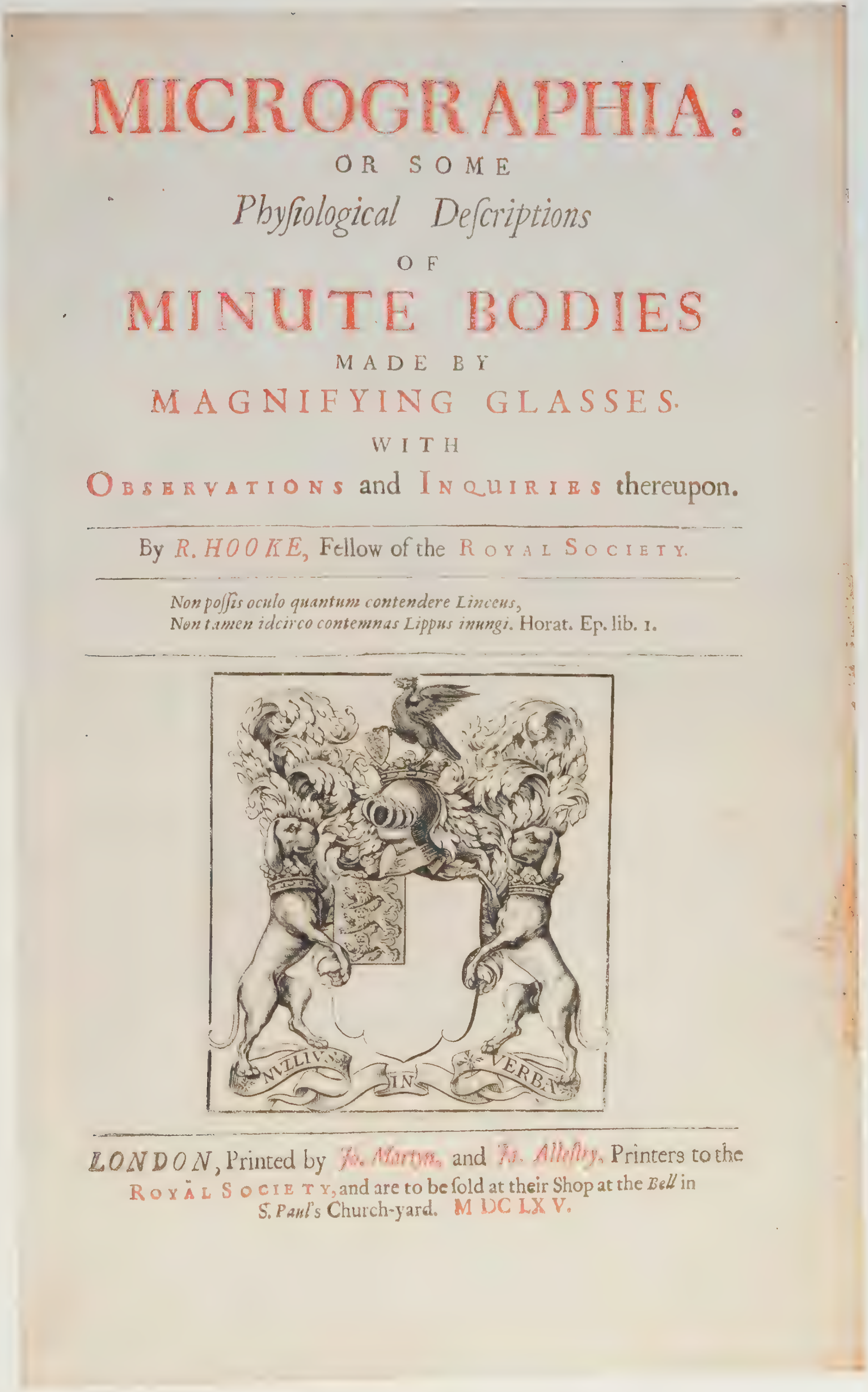
This for my highly esteem'd freind Mr. Godfry
From his very humble Servt: Rob: Hooke

By the Council of the ROYAL SOCIETY of *London* for Improving of Natural Knowledge.

Ordered, *That the Book written by* Robert Hooke, *M.A. Fellow of this Society, Entituled*, Micrographia, or ſome Phyſiological Deſcriptions of Minute Bodies, made by Magnifying Glaſſes, with Obſervations and Inquiries thereupon, *Be printed by* John Martyn, *and* James Alleſtry, *Printers to the ſaid Society.*

Novem. 23.
1664.

BROUNCKER. *P.R.S.*



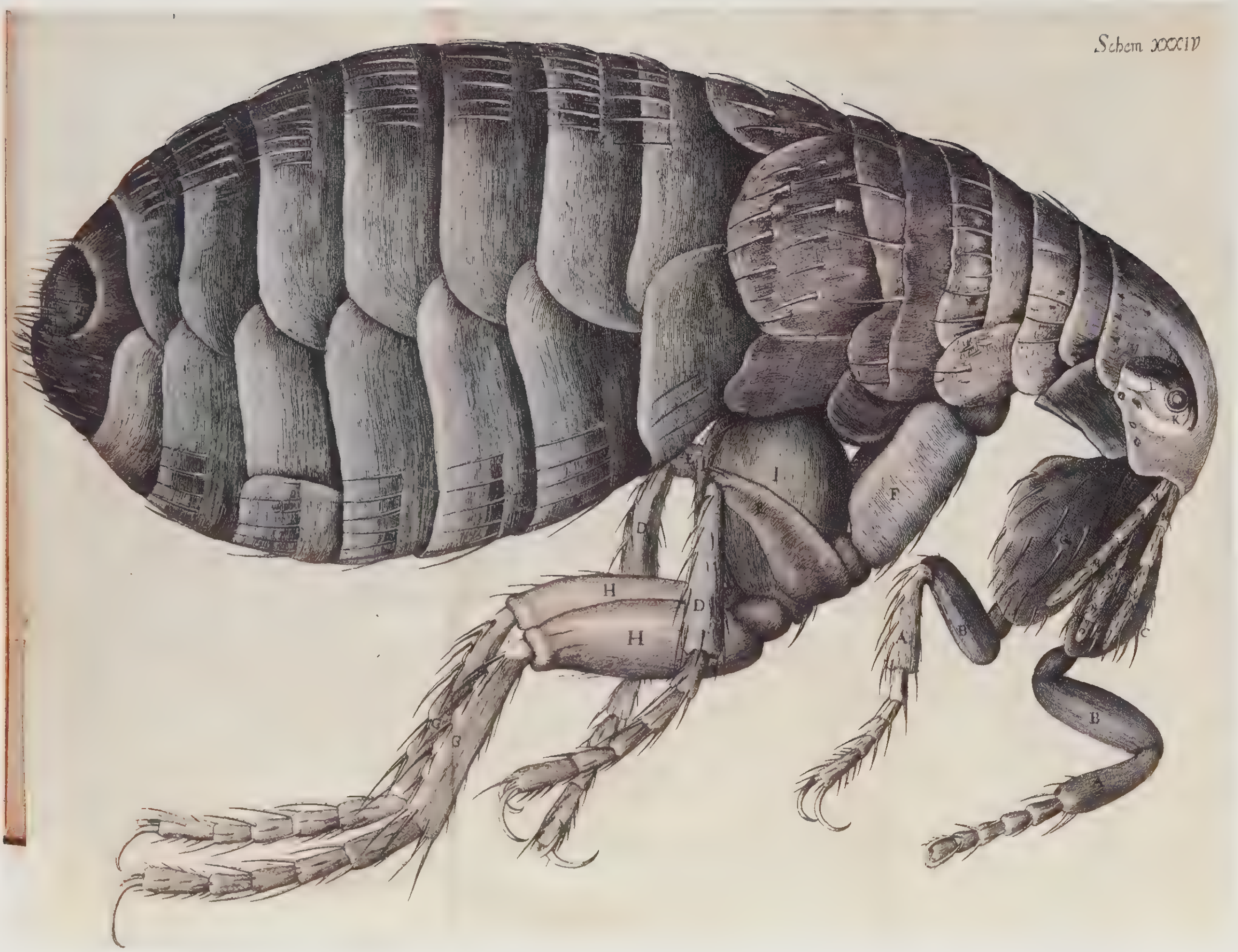
MICROGRAPHIA:
OR SOME
Phyſiological Deſcriptions
OF
MINUTE BODIES
MADE BY
MAGNIFYING GLASSES.
WITH
OBSERVATIONS and INQUIRIES thereupon.

By *R. HOOKE*, Fellow of the ROYAL SOCIETY.

Non poſſis oculo quantum contendere Linceus,
Non tamen idcirco contemnas Lippus inungi. Horat. Ep. lib. 1.

NVLLIVS
IN
VERBA

LONDON, Printed by *Jo. Martyn*, and *Ja. Alleſtry*, Printers to the
ROYAL SOCIETY, and are to be ſold at their Shop at the *Bell* in
S. Paul's Church-yard. M DC LXV.



525

HOOKE, Robert (1635-1703). *Micrographia: or some Physiological Descriptions of Minute Bodies made by Magnifying Glasses*. London: John Martin and James Allestry for the Royal Society, 1665

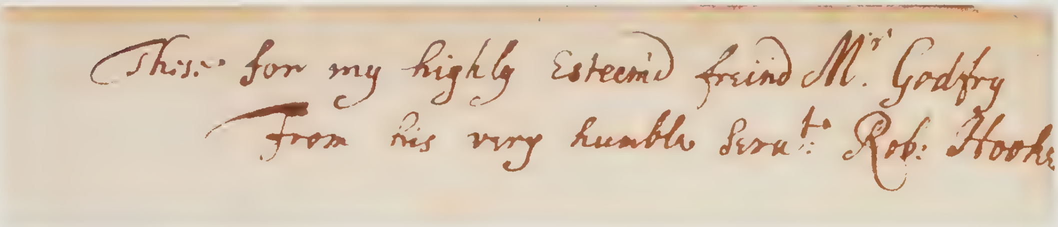
Chancery 2° (295 x 193 mm). Collation: π^2 (Royal Society Council's imprimatur, title printed in red and black with engraved vignette of the Society's coat-of-arms), A^2 (author's dedication to Charles II, his address to the Royal Society), a-g^2 (preface); B-C^2 D-Z^4 Aa-Kk^4 Ll-Mm^2 (text, table, errata); 38 engraved plates, 20 of which folding, inserted where they relate to the text. The plates on three different paper stocks from the text. (A few minor stains, pl. 35 browned and mounted, tiny patch of surface damage on pl. 36, 3 plates shaved, short insignificant tears in the folds of 13 plates.) Contemporary English calf (rebacked, corners repaired), morocco fall-down-back box.

Provenance: contemporary signature on verso of title and at the end of the text, apparently that of W. Brouncker [William Brouncker, 2nd Viscount Brouncker of Castle Lyons, in the Irish Peerage, c. 1620-84] as first president of the Royal Society, presumably to approve the copy; ? Sir Edmund Berry Godfrey (1621-78, justice of the peace for Westminster, knighted 1666 for his work during the plague of 1665 [which Hooke avoided by working at Durdans, the Earl of

Berkeley's seat, near Epsom], murdered in the panic following Titus Oates' evidence and the Popish plot) or perhaps one of his brothers, Benjamin or Michael Godfrey: *This is for my highly Esteem'd freind Mr. Godfry / From his very humble servant Rob: Hooke* (inscribed by the author on imprimatur page); Thomas Ansell (19th-century armorial bookplate); Prof. E.N. da C. Andrade, Fellow of the Royal Society (Sotheby sale 12 July 1965, lot 261)

FIRST EDITION, FIRST ISSUE OF THE LANDMARK WORK IN THE HISTORY OF MICROSCOPY, one of the most influential scientific books of the 17th century, containing numerous discoveries and ingenious anticipations. The observations are made with his newly perfected compound microscope, enabling the study of inorganic matter such as woven cloth and frozen urine crystals, as well as the investigations of plant and animal life such as mold forms and the honeycomb structure of cork (coining the word "cell" in biology, to describe the basic microscopic units of tissue). Hooke here describes for the first time a polyzoon, the minute markings of fish scales, the structure of feathers and of the bee's sting, apian wings, the compound eye of the fly and its legs and feet, the gnat and its larvae, the flea and the louse, sponges and horn and hair tissue. Examining charcoal, he describes the real nature of combustion, approaching Boyle with whom he collaborated and anticipating Mayow. His theory of light, including the first demonstration of the periodicity of the spectrum, inspired Newton in his optical experiments.

"*Micrographia* was not only the first book devoted entirely to microscopical observations, but also the first to pair its descriptions with profuse and detailed illustrations, and this graphic portrayal of a hitherto unseen world had an impact rivalling that of Galileo's *Sidereus nuncius*" (Norman). The accomplished plates were engraved from drawings by the author himself and some reputedly by Sir Christopher Wren. They include startling portraits of the flea and louse, blown up to frightening proportions.



This is for my highly Esteem'd freind Mr. Godfry
From his very humble Servt: Rob: Hooke

(detail, actual size)

PRESENTATION COPY INSCRIBED BY THE AUTHOR. Keynes confirms that no toher copy inscribed by Hooke is known to exist. Godfry also appears in Hooke's diary (published 1935), but a positive identification of the recipient is difficult. Andrade, "Robert Hooke, F.R.S." in: *The Royal Society: its origins and founders*, ed. Hartley, pp. 137-45; Dibner 18; Garrison-Morton 262: *Heirs of Hippocrates* 599; Horblit 50; Keynes *Hooke* 6; NLM/Krivatsy 5958; PMM 147; Weller 10845; Wellcome III, p. 296; Wing H-2620; Norman 1092.

Estimate: $70,000-100,000

)526

HOOKE, Robert (1635-1702). *An Attempt to prove the Motion of the Earth from Observations.* London: T.R. for John Martyn, 1674. Engraved folding plate. Keynes *Hooke* 16; Wing H-2613; Wellcome III, p. 296; Norman 1093. — *A Description of Helioscopes, and some other Instruments.* London: T.R. for John Martyn, 1676. 3 engravings on 2 folding plates. Keynes 19; Wing H-2614; Norman 1095. — *Lampas: or, Descriptions of some Mechanical Improvements of Lamps & Waterpoises.* London: for John Martyn, 1677. 3 folding engraved plates (one a double-plate numbered tab. I & tab. II). Keynes *Hooke* 20; Wellcome III, P. 296; Wing H-2616; Norman 1096. — *Lectures and Collections ... cometa ... microscopium.* London: for J. Martyn, 1678. 5 folding engraved plates. Keynes *Hooke* 22; NLM/Krivatsy 5957; Wing H-2618; Norman 1098. — *Lectures de potentia restitutiva, or of Spring, explaining the Power of Springing Bodies.* London: for John Martyn, 1678. 3 engraved plates (2 folding). Keynes 21; Wing H-2619; Norman 1097. — *Animadversions on the first part of the machina coelestis of ... Johannes Hevelius.* London: T.R. for John Martyn, 1674. 3 folding engraved plates. Keynes *Hooke* 18; Wellcome III, p. 296; Wing H-2611; Norman 1094.

Together 6 works bound in one volume, all 4° (each approximately 210 x 155). Engraved plates. (Some minor browning and spotting, occasional soiling.) Contemporary diced russia, covers with gilt borders, spine richly gilt (rebacked preserving original spine, corners worn). *Provenance*: occasional marginalia in an early hand.

COMPLETE SET OF FIRST EDITIONS OF HOOKE'S SIX CULTERIAN LECTURES. In his preface to the first lecture, Hooke explained that the remaining lectures would be published in the same format so that they could be bound together (as here). The lectures were named in honor of Sir James Cutler, who founded a lectureship in mechanics for Hooke in 1664. The first lecture contains Hooke's reformulation of the approach to orbital dynamics. He recognized here for the first time that orbital motion did not depend on centrifugal force, but rather on the principle of rectilinear inertia. This discovery set Newton on the correct path to understanding orbital dynamics. The second Cutleriean lecture (bound here slightly out of order), *Animadversions on the first part of the machina coelestis*, contains the first descriptions of Hooke's clock-driven telescope and the first form of a universal joint. The *Lectures de potentia restitutiva*, the fifth published Cutlerian lecture, contains Hooke's law of elasticity—that stress is proportional to strain. The sixth and final published lecture, *Lectures and collections*, includes an account of the comet witnessed in April 1677. It also prints two letters from Leeuwenhoek concerning his miscroscopical examinations, and gives Hooke's own account of his improved microscopical methods. A RARE COMPLETE SET OF THESE IMPORTANT LECTURES.

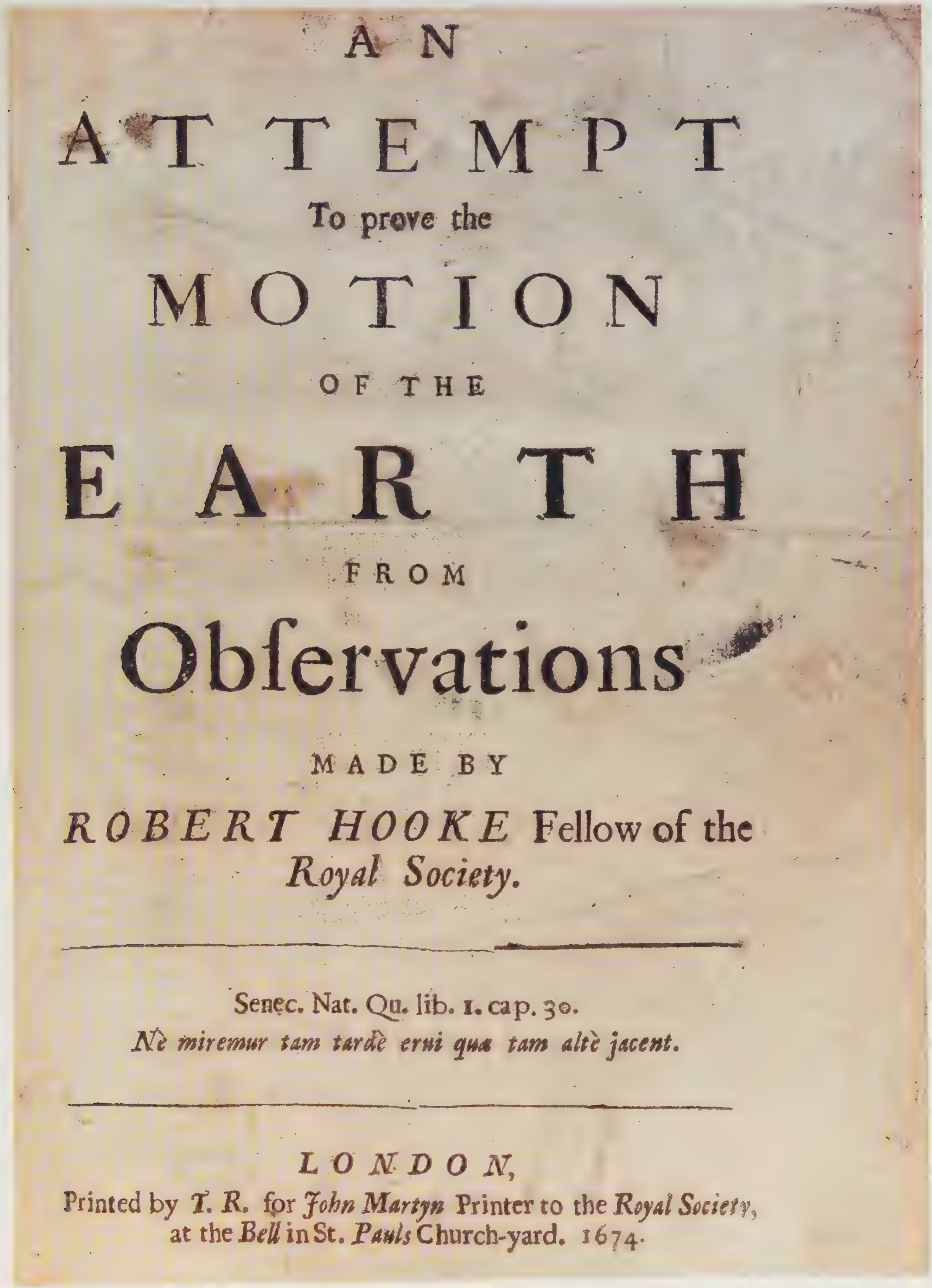
[*Bound with*:]

HOOKE, Robert, editor (1635-1702). *Philosophical Collections*. Numbers 1-7 [all published]. London: for John Martin [no. 1], Moses Pitt [no. 2], Richard Chiswell [nos. 3-7], 1679-1682.

4°. 7 engraved plates (5 folding), one full-page engraving on Z2r (part 5). (Some minor browning and spotting, occasional soiling.)

RARE COMPLETE SET OF ISSUES. Following the death of Henry Oldenburg in 1677, regular publication of the *Philosophical Transactions* was interrupted. Hooke was authorized by the Council of the Royal Society to publish the *Philosophical Collections* during this period prior to its resumption in January 1682/3. "*Philosophical collections* must have circulated in much smaller numbers [than the *Phil. trans.*], complete sets of the seven numbers being now very uncommon, and it is probable that Hooke received little return for his trouble" (Keynes, p. 48). The third number contains two papers by Hooke, one an optical discourse for the short-sighted, and the other a mechanical discourse in which he describes the "best form of Horizontal Sayls for a Mill." The sixth number contains William Briggs' "Nova visionis theoria," a treatise on the physiology of vision which prompted Newton to reprint it with his own introduction in 1685. Garrison-Morton 1481.3 (Briggs); Keynes *Hooke* 24; Norman 1100.

Estimate: $20,000-30,000

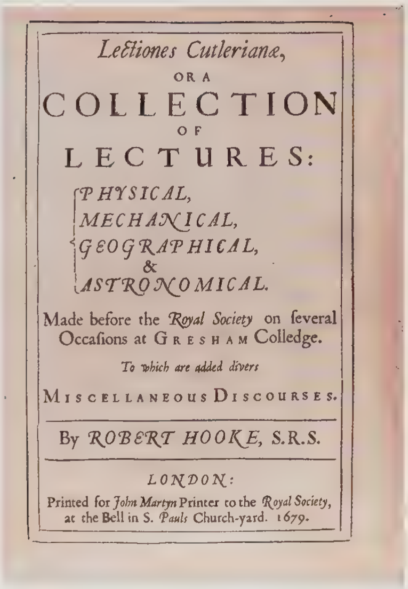


AN
ATTEMPT
To prove the
MOTION
OF THE
EARTH
FROM
Obſervations
MADE BY
ROBERT HOOKE Fellow of the
Royal Society.

Senec. Nat. Qu. lib. 1. cap. 30.
Nè miremur tam tardè erui quæ tam altè jacent.

LONDON,
Printed by *T. R.* for *John Martyn* Printer to the *Royal Society*,
at the *Bell* in St. *Pauls* Church-yard. 1674.

526 (actual size)



Lectiones Cutlerianæ,
OR A
COLLECTION
OF
LECTURES:
PHYSICAL,
MECHANICAL,
GEOGRAPHICAL,
&
ASTRONOMICAL.
Made before the *Royal Society* on ſeveral Occaſions at GRESHAM Colledge.
To which are added divers
MISCELLANEOUS DISCOURSES.
By *ROBERT HOOKE*, S.R.S.
LONDON:
Printed for *John Martyn* Printer to the *Royal Society*, at the Bell in S. *Pauls* Church-yard. 1679.

527

ɔ527

HOOKE, Robert (1635-1702). *Lectiones Cutlerianae, or a Collection of Lectures: Physical, Mechanical, Geographical, & Astronomical ... to which are added divers Miscellaneous Discourses.* London: for John Martyn, 1679.

4° (220 x 163 mm). 16 (of 17) engraved plates, all but 3 folding (lacks tab. IIII of *Lampas*). (Some minor pales spotting, mostly marginal.) Contemporary mottled calf (covers detached). *Provenance*: Bridgewater Library (large engraved bookplate).

FIRST COLLECTED EDITION. Hooke's six Cutlerian lectures which originally appeared separately between 1674 and 1678 (see lot 526) were collected and published in 1679 under a general title. Keynes *Hooke* 23; Dibner *Heralds of Science* 147; Wing H-2617; Norman 1099.

Estimate: $6,000-8,000

ɔ528

HOOKE, Robert (1635-1702). *The Posthumous Works ... containing his Cutlerian Lectures, and other Discourses.* Edited by Richard Waller. London: Samuel Smith and Benjamin Walford, 1705.

2° (323 x 198 mm). Title printed in red and black. 15 engraved plates, some folding (a few small repairs). (Some very minor spotting, a few single wormholes on some inner margins, catching a few letters and plate images.) Contemporary speckled calf gilt (rebacked to match). *Provenance*: John Campbell (engraved armorial bookplate).

FIRST EDITION. Edited by Richard Waller, Hooke's *Posthumous Works* includes his major contribution to geology, entitled "Lectures and discourses on earthquakes." Waller's biography of Hooke comprising the preface to the work is one the best contemporary sources for his life. Keynes *Hooke* 25; Wellcome III, p. 297; Norman 1101.

Estimate: $800-1,200

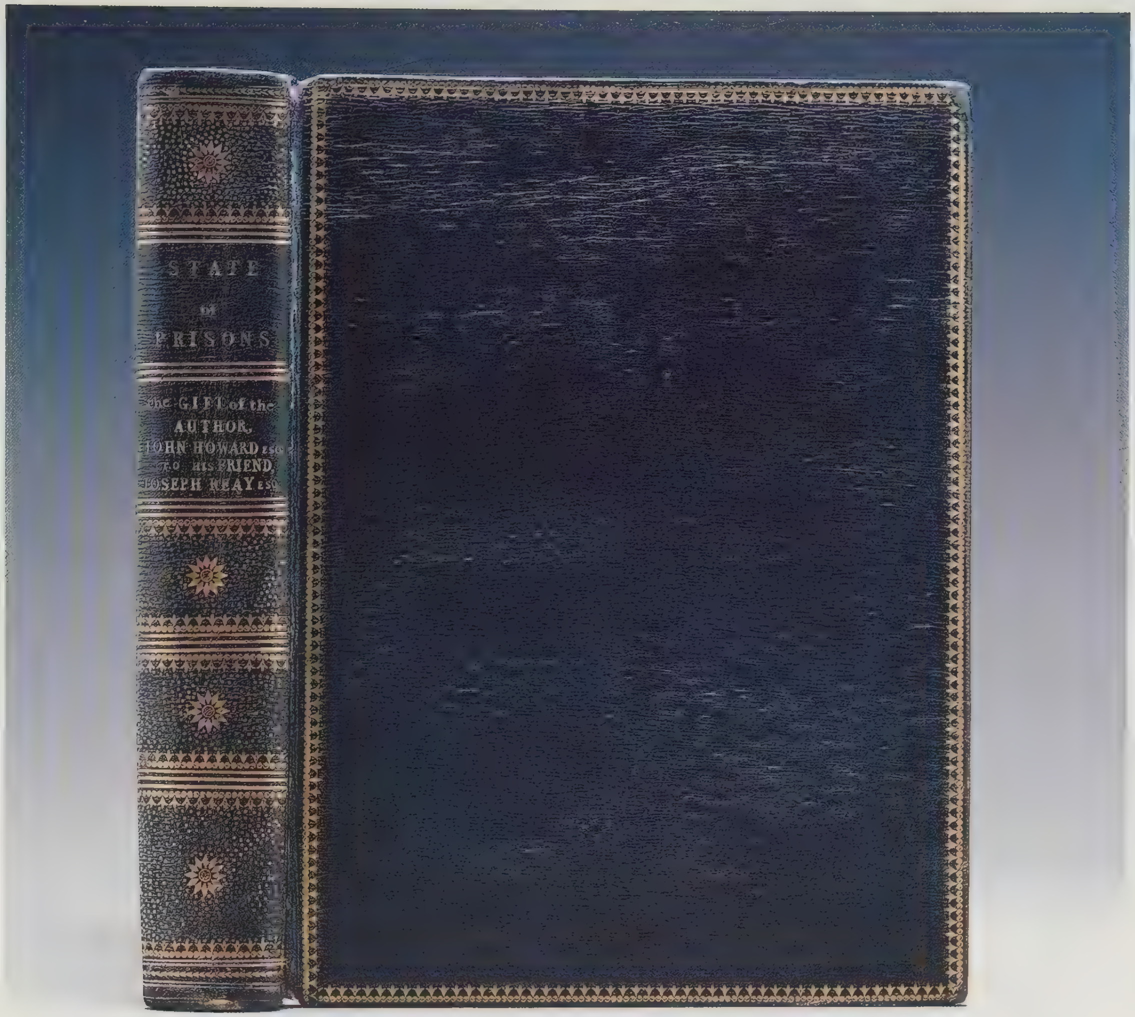
ɔ529

HOOKE, Robert (1635-1702). *Philosophical Experiments and Observations.* Edited by William Derham (1657-1735). London: W. and J. Innys, 1726.

8° (192 x 117 mm). 4 engraved plates (2 folding), woodcut illustrations in text. Contemporary English blind-panelled calf (rubbed).

FIRST EDITION. Derham, a friend of Richard Waller (see lot 528), took over the editing of these unpublished papers by Hooke following Waller's death. The papers are arranged chronologically and include works by other "eminent virtuosos in his time," as stated on the title. Keynes 36; Norman 1102.

Estimate: $500-700



›530

HOWARD, John (ca. 1727-1790). *The State of the Prisons in England and Wales, with preliminary observations, and an account of some Foreign Prisons.* Warrington: William Eyres, for T. Cadell and N. Conant, 1777.

4° (270 x 204 mm). 22 engraved plates, all but one folding, one engraved folding table (some minor offsetting and pale spotting). (Lacking half-title.) Presenation binding of contemporary blue straight-grained morocco gilt, smooth spine with gilt compartments, gilt-lettered in two, the remainder with a repeated gilt star device against a pointelle background (extremities rubbed). *Provenenance*: Joseph Reay (binding with gilt-lettered presentation statement on spine: "the Gift of the Author, John Howard esq. to his Friend Joseph Reay esq.").

FIRST EDITION OF THE FIRST MAJOR PRACTICAL WORK ON PRISON REFORM. "Howard devoted much of his life to the improvement of the conditions then prevailing in prisons. The publication of his book led to legislation abolishing abuses in prisons and providing for their proper cleaning" (Garrison-Morton). "His single-handed campaign not only caused a revolution in his lifetime, but is the direct progenitor of subsequent work in the most critical branch of penal reform" (PMM).

In his preface to Baumgartner's work on Howard, Arnold M. Muirhead discusses presentation copies of this work as "often in elaborate presentation bindings, and usually the half-title has been removed and a fresh leaf inserted bearing an inscription" (p. 10). The Norman copy is without the half-title and uninscribed. A FINE COPY IN A PRESENTATION BINDING. Baumgartner 1; Garrison-Morton 1598; PMM 224; Wellcome III, p. 306; Norman 1108.

Estimate: $1,500-2,500

○531

HOWARD, John (ca. 1727-1790). *An Account of the principal Lazarettos in Europe; with various papers relative to the Plague: together with further observations on some Foreign Prisons and Hospitals.* Warrington: William Eyres for T. Cadell, C. Dilly, and J. Taylor, 1789. 4° (292 x 225 mm). 22 engraved plans and views, engraved folding table (some scattered foxing and browning, some tears at folds). (Lacking blank A1 and half-title A2.) Contemporary tree calf (rebacked, corners worn). *Provenance*: H. Thornton (presentation inscription from the author on inserted leaf, possibly original endpaper, which reads: "Mr. Howard requests Mr. H. Thornton, will be kind enough to accept this book from him, as a small testimony of his esteem.").

FIRST EDITION. PRESENTATION COPY of Howard's report on the conditions of various European hospitals, containing both plans and notes on management and personnel. It also contains Howard's additional remarks on Irish, Scottish and English prisons, based on his latest inspections. Baumgartner 21; Garrison-Morton 1601; Wellcome III, p. 306; Norman 1109.

Estimate: $600-800

○532

HUME, David (1711-1776). *A Treatise of Human Nature: Being an Attempt to introduce the experimental Method of Reasoning into Moral Subjects.* Volumes I-II. London: for John Noon, 1739.

2 volumes, 8° (209 x 128 mm). (Some minor marginal stains on title verso and facing leaf in first volume.) Contemporary half speckled calf, marbled boards (joints starting on second volume, some minor wear at edges). *Provenance*: J.M. Herries (signature on title-pages, dated 1842).

FIRST EDITION. "In the *Treatise* ... we have the first attempt to apply Locke's empirical psychology to build a theory of knowledge, and from it to provide a critique of metaphysical ideas. Where the former postulated a material substance existing independently of perception and the latter a spiritual, Hume maintained that the continued existence of objects distinct from perception is illusory. Where hitherto a distinction had been made between reason and the combined product of sensation and experience, he declared that our 'rational' judgements are simply association by custom. All our knowledge is only the sum of our conscious experience" (PMM). The first two volumes, subtitled *of the Understanding* and *of the Passions*, respectively, were published anonymously. A third volume, subtitled ...*of Morals*, was published in 1740. PMM 194; Norman 1113.

(2)

Estimate: $3,000-4,000

○533

HUNTER, John (1728-1793). *The natural history of the human teeth: explaining their structure, use, formation, growth and disease.* London: for J. Johnson, 1771. 4° (267 x 210 mm). 16 engraved plates by Strange, Grignion, Ryland, Fougeron and others after Jan van Rymsdyk (small tear to Plate 14, some occasional very light browning). Modern calf antique. *Provenance*: Thomas Fowler (inscription); Thomas Warner (inscription). FIRST EDITION. "A detailed study of the mouth, jaws and teeth with exceptionally accurate plates" (Garrision-Morton 3675). Norman 1116. — [*Bound with*:] HUNTER. *A practical treatise on the disease of the teeth; intended as a supplement to the natural history of those parts.* London: J. Johnson, 1778. 4° (267 x 210 mm). (Some light marginal browning, a few tiny holes in signature S, with loss of one letter on S4). FIRST EDITION of a work that (with *the Natural History of the Human Teeth*) revolutionized the practice of dentistry and provided a basis for later dental research" (Garrison-Morton 3676). *Heirs of Hippocrates* 968; Waller 10650; Wellcome III, p. 317; Norman 1116.

Estimate: $2,000-3,000

o534

HUNTER, John (1728-1793). *Treatise on the Venereal Disease*. London: n.p. [privately printed for the author at 13 Castle-Street], 1786.

4° (247 x 204 mm). 7 engraved plates by William Sharp after drawings by William Bell (occasional foxing to text and plates; some offsetting from plates). Half sheep, old marbled boards (rebacked). *Provenance*: some contemporary marginalia; H.R. Wears, Trinity Hall (inscription).

FIRST EDITION. Venereal disease were thought to be caused by a single poison. Hunter, testing this theory, used gonorrhea matter from a patient who also had syphilis, thus reaching false conclusions. "Backed by the weight of his authority, this experiment retarded the development of knowledge regarding the two diseases" (Garrison-Morton). The first book to be printed at Hunter's private press at Castle Street, an attempt to avoid unauthorized versions of his works. Garrison-Morton 2377; *Heirs of Hippocrates* 969; Osler 1227; Waller 4998; Wellcome III, p.317; Norman 1117.

Estimate: $1,000-1,500

o535

HUNTER, John (1728-1793). *Observations on certain parts of the animal oeconomy*. London: n.p. [privately printed for the author at 13 Castle-Street], 1786.

4° (259 x 204 mm). 18 engraved plates after drawings by Jan van Rymsdyk (fl.1760-1770) and William Bell, engraved by W. Sharp, P.C. Canot and William Skelton (minor faint foxing to a few plates). Contemporary sheep (rebacked, preserving original gilt-ruled spine with red leather label).

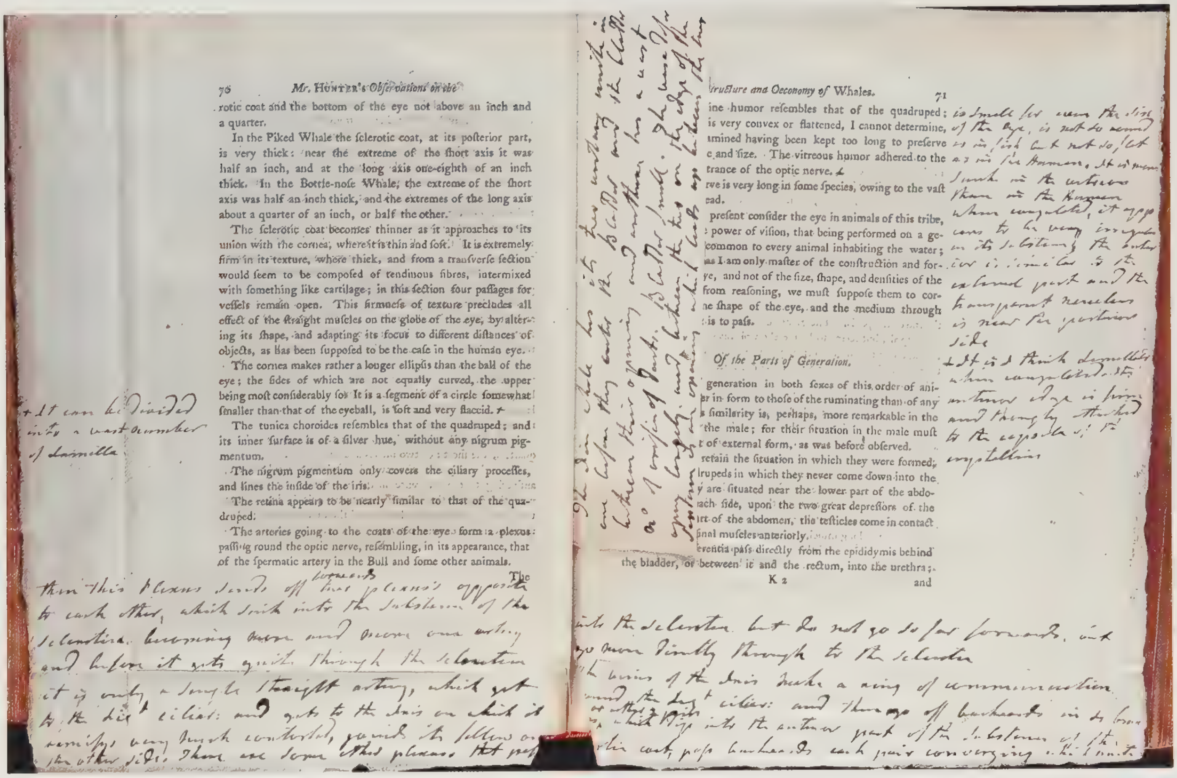
FIRST COLLECTED EDITION. Most of the works had appeared previously in *Philosophical Transactions*. The most notable papers include his "Proposals for the recovery of persons apparently drowned." two studies on hermaphrodism ("An Account of the free-martin" and "An account of an extraordinary pheasant," a study on the air-cells of birds, and a study on the circulatory relationship between the placenta and the uterus. Norman 1118.

Estimate: $800-1,200

o536

HUNTER, John (1728-1793). *Observations on the structure and oeconomy of whales*. [London, 1787]. 4° (276 x 216 mm). 8 folding engraved plates by James Basire (1730-1802) after William Bell (d. 1792) (some offsetting from plates, affecting only one page of text). Small portrait of Hunter tipped into margin of A2 (1 inch marginal tear on title and first few preliminaries, occasional minor foxing). Contemporary calf gilt (rebacked, preserving original spine, corners worn, joints cracked). *Provenance*: The author (with his manuscript notes); Everard Home (1756-1832), Hunter's pupil and brother-in-law (manuscript marginalia); William Ingram Keir, M.D. (inscription); Kenneth Garth Huston (bookplate). This and the following items are separately paginated authors' offprints from *Philosphical Transactions*. Norman 1119. — [*Bound with*:] HUNTER. *Observations on bees*. [London, 1792]. 4°. Norman 1121. — [*Bound with*:] HUNTER. *An experiment to determine the effect of extripating one ovarium upon the number of young produced*. [London, 1787]. 4°. Norman 1120. — [*Bound with*:] JENNER, Edward (1749-1823). *Observations on the cuckoo*. [London, 1788]. 4°. Small portrait of Jenner tipped onto verso of title (tiny hole to C2, not affecting text). *Provenance*: John Hunter (1728-1793), Jenner's tutor (marginalia). Norman 1161. — [*Bound with*:] WELLS, William Charles. *Observations on the influence, which excites the muscles of animals to contract in Mr. Galvani's experiments*. [London, 1795]. 4°. *Provenance*: Everard Home (1756-1832), (presentation inscription by the author). — [*Bound with*:] WILSON, James. *A description of a very unusual formation of the human heart*. [London, 1798]. 4°. *Provenance*: Everard Home (1756-1832), (presentation inscription by the author). Engraved plate by Basire. — [*Bound with*:] YOUNG, Thomas (1773-1829). *Observations on vision*. [London, 1793]. 4°. Engraved plate by Basire, after drawing by the author. Garrison-

continued



70 *Mr. Hunter's Observations on the*

rotic coat and the bottom of the eye not above an inch and a quarter.

In the Piked Whale the ſclerotic coat, at its poſterior part, is very thick: near the extreme of the ſhort axis it was half an inch, and at the long axis one-eighth of an inch thick. In the Bottle-noſe Whale, the extreme of the ſhort axis was half an inch thick, and the extremes of the long axis about a quarter of an inch, or half the other.

The ſclerotic coat becomes thinner as it approaches to its union with the cornea, where it is thin and ſoft. It is extremely firm in its texture, where thick, and from a tranſverſe ſection would ſeem to be compoſed of tendinous fibres, intermixed with ſomething like cartilage; in this ſection four paſſages for veſſels remain open. This firmneſs of texture precludes all effect of the ſtraight muſcles on the globe of the eye, by altering its ſhape, and adapting its focus to different diſtances of objects, as has been ſuppoſed to be the caſe in the human eye.

The cornea makes rather a longer ellipſis than the ball of the eye; the ſides of which are not equally curved, the upper being moſt conſiderably ſo. It is a ſegment of a circle ſomewhat ſmaller than that of the eyeball, is ſoft and very flaccid. +

+ It can be divided into a vast number of lamilla

The tunica choroides reſembles that of the quadruped; and its inner ſurface is of a ſilver hue, without any nigrum pigmentum.

The nigrum pigmentum only covers the ciliary proceſſes, and lines the inſide of the iris.

The retina appears to be nearly ſimilar to that of the quadruped.

The arteries going to the coats of the eye form a plexus paſſing round the optic nerve, reſembling, in its appearance, that of the ſpermatic artery in the Bull and ſome other animals.

The

then this plexus sends off two plexus's towards opposite to each other, which sink into the Substance of the Sclerotica, becoming more and more one artery and before it gets quite through the sclerotica it is only a single straight artery, which get to the lig^t ciliar: and goes to the Iris on which it ramifys very much contorted, and its fellow on the other side. There are some other plexus that pass into the sclerotica but do not go so far forwards, but go more directly through to the sclerotica

The veins of the Iris make a ring of communication round the lig^t ciliar: and thence go off backwards in so [illegible] which pass into the anterior part of the substance of this coat, pass backwards each pair converging [illegible]

[illegible]

Structure and Oeconomy of Whales. 71

ine humor reſembles that of the quadruped; is very convex or flattened, I cannot determine, amined having been kept too long to preſerve e and ſize. The vitreous humor adhered to the trance of the optic nerve. &

is small for even the size of the eye, is not so [illegible] as in fish but not so flat as in the Human. It is more sunk in the anterior than in the Human when compared, it appears to be very irregular in its substance; the anterior is similar to the external part and the transparent [illegible] is near the posterior side

& It is I think smaller when compared [illegible] anterior edge is firm and strongly attached to the capsula of the crystallina

rve is very long in ſome ſpecies, owing to the vaſt ead.

preſent conſider the eye in animals of this tribe, power of viſion, that being performed on a gecommon to every animal inhabiting the water; as I am only maſter of the conſtruction and forye, and not of the ſize, ſhape, and denſities of the from reaſoning, we muſt ſuppoſe them to corne ſhape of the eye, and the medium through is to paſs.

Of the Parts of Generation.

generation in both ſexes of this order of anier in form to thoſe of the ruminating than of any ſimilarity is, perhaps, more remarkable in the the male; for their ſituation in the male muſt t of external form, as was before obſerved.

retain the ſituation in which they were formed; lrupeds in which they never come down into the y are ſituated near the lower part of the abdoach ſide, upon the two great depreſſors of the rt of the abdomen, the teſticles come in contact inal muſcles anteriorly.

erentia paſs directly from the epididymis behind the bladder, or between it and the rectum, into the urethra;

K 2 and

536

Morton 1486; Norman 2273. — [*Bound with*:] YOUNG, Thomas. *On the mechanism of the eye.* London: W. Bulmer & Co., 1801. 6 engraved plates by Basire, labelled II-VII. Garrison-Morton 1487; Norman 2274. — [*Bound with*:] 9 other author's offprints from *Philosphical Transactions*, 1787-1805.

FIRST EDITIONS. Two of the papers have presentation inscriptions to Sir Everard Home, and the volume appears to have been collected by him. He acquired John Hunter's (his brother-in-law) library on his death. The first paper has several pencil notes by him, and he identified Hunter's hand in the notes on Jenner's paper.

Estimate: $4,000-6,000

537

HUNTER, John (1728-1793). *A treatise on the blood, inflammation, and gun-shot wounds ... to which is prefixed a short account of the author's life, by his brother-in-law, Everard Home.* London: John Richardson for George Nicol, 1794.

4° (260 x 207 mm). Frontispiece portrait engraving by W. Sharp after Sir Joshua Reynolds. 9 engraved plates by William Skelton (some text and plates foxed and browned, some light offsetting to title-page from engraved frontispiece). Contemporary half black leather, marbled boards (rebacked, corners and boards worn). *Provenance*: Charles Singer (1876-1960), science historian (inscription and his notes on front free endpages).

FIRST EDITION OF HUNTER'S MOST IMPORTANT WORK. A compound of physiology, pathology and surgery, and full of original observations and comments. The last work to be issued from Hunter's private press on Castle Street (but imprint given as J. Richardson), as Hunter died during the printing. The final printing was overseen by Mathew Baillie and Sir Everard Home, who also added the biography to the work. Home was Hunter's pupil, brother-in-law and executor for his estate. After Hunter's death, Home refused to hand over Hunter's notes and manuscripts to the College of Surgeons, but used them in preparing works to be published under his own name, and finally, in 1823, burnt the vast majority of the archive. Garrison-Morton 2283; Grolier *Medicine* 52; *Heirs of Hippocrates* 972; NLM/Blake, p. 226; Osler 1230; Waller 4997; Wellcome III, p. 317; Norman 1122.

Estimate: $1,000-2,000

538

o538

HUNTER, William (1718-1783). *Anatomia uteri humani gravidi tabulis illustrata. The Anatomy of the Human Gravid Uterus exhibited in Figures.* Birmingham: John Baskerville, 1774.

Broadsheets (645 x 457 mm.) 34 engraved plates (some dampstaining, plate VIII with image slightly cropped along outer margin, a few others trimmed close). Modern half calf.

FIRST EDITION. "ONE OF THE FINEST ANATOMICAL ATLASES EVER TO BE PRODUCED" (Garrison-Morton). "This work ... contains life-sized figures which not only are anatomically accurate but are themselves works of art. Hunter spent more than twenty-five years preparing this atlas, employed artists to prepare the engravings at enormous expense to himself, and entrusted the printing of the work to John Baskerville, the greatest English printer of the 18th century. This monumental work is, indeed, one of the great publications of world medical literature as well as a classic of book production" (*Heirs of Hippocrates*). The *Anatomia uteri humani* was the largest book printed by John Baskerville. Choulant-Frank, pp. 296-297; Garrison-Morton 6157; Gaskell 53; *Heirs of Hippocrates* 942; Osler 3026; Waller 5004; Wellcome III, p. 319; Norman 1125.

Estimate: $4,000-6,000

o539

HUNTER, William (1718-1783). *An Anatomical Description of the Human Gravid Uterus, and its Contents.* Edited by Matthew Baillie (1761-1823). London: printed for J. Johnson and G. Nicol, 1794.

4° (290 x 228 mm., uncut). (Light browning.) Modern quarter calf andtique.

FIRST EDITION. "Hunter's nephew, Matthew Baillie, found an uncompleted manuscript several years after Hunter's death and discovered that it was intended to be the text for the atlas (see lot 538). In the Advertisement Baillie explains that he is publishing the work for the first time, with only a few changes and remarks which he felt necessary for completeness" (*Heirs of Hippocrates*). Choulant-Frank, p. 297; Garrison-Morton 6157.1; *Heirs of Hippocrates* 945; Osler 3028; Norman 1126.

[*With*]:

HUNTER. *An Anatomical Description of the Human Gravid Uterus and its Contents.* Edited by Edward Rigby, London: Henry Renshaw, 1843. 8° (222 x 141 mm., uncut and unopened). 8 engraved plates (2 hand-colored). Contemporary cloth (rebacked, lower cover detached). Second edition. Norman 1127.

(2)

Estimate: $1,000-1,500

540

HUTTON, James (1726-1797). *The theory of the earth, from the Transactions of the Royal Society of Edinburgh*. [Edinburgh, 1786?]. Offprint from the *Transactions*, Volume I, Edinburgh, 1788.

4° (273 x 216 mm). π^1 A-M^4 χ^1. 50 leaves. Half-title, text with caption title "Theory of the earth; or an investigation of the laws observable in the composition, dissolution, and restoration of land upon the globe... [Read March 7. and April 4. 1785]," 2 engraved plates, by F. Baine and D. Lizars respectively. (Occasional very faint marginal discoloration.) Contemporary marbled stiff wrappers (rebacked in paper); modern morocco-backed folding case.

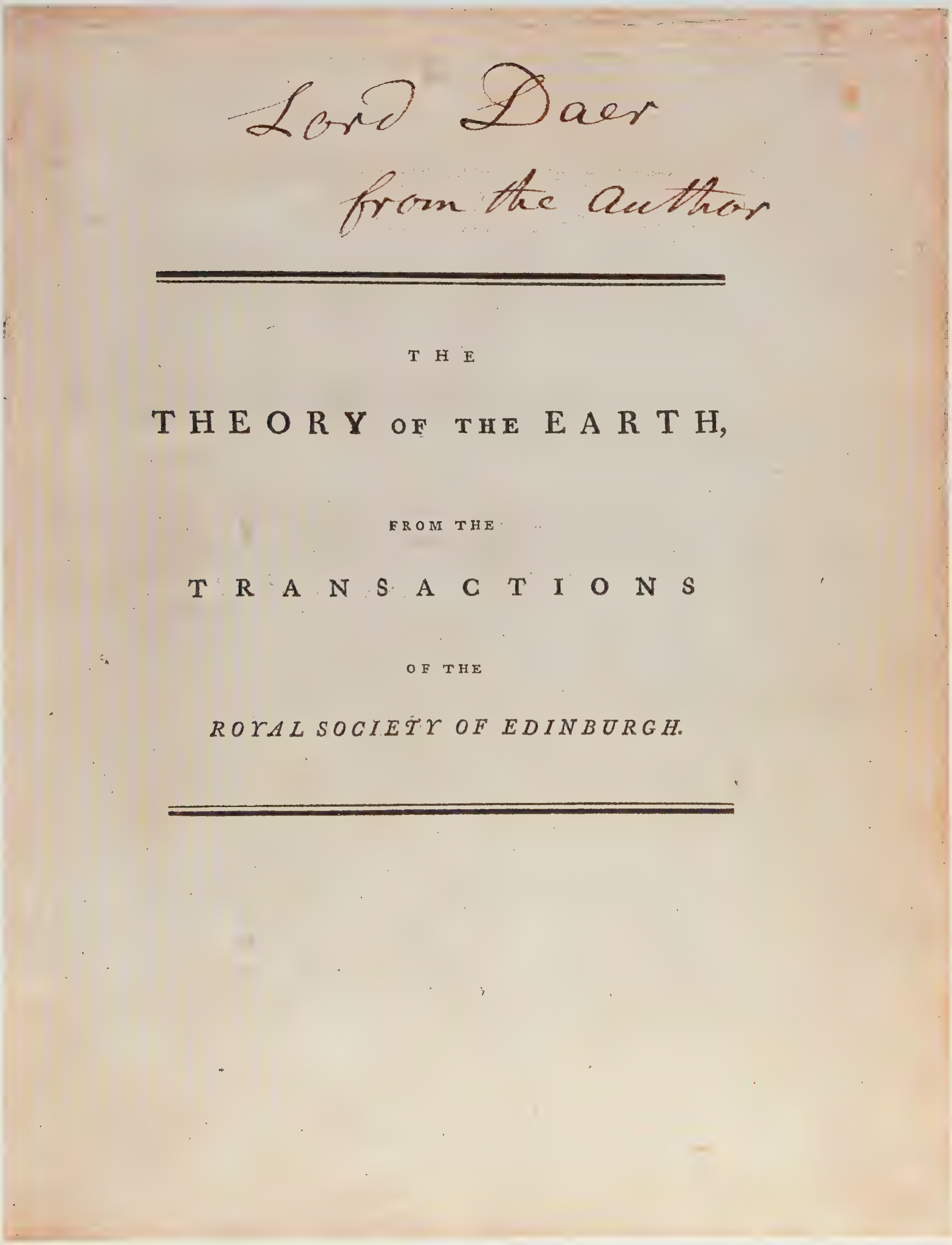
Provenance: PRESENTATION COPY FROM THE AUTHOR to Lord Daer (1763-1794), second son of the Fourth Earl of Selkirk (presentation inscription on half-title); Archibald Geikie (1835-1924), historian of geology, editor of the third volume (1899) of Hutton's expanded *Theory of the Earth* [see lot 541] (long note authenticating the presentation inscription and describing Daer on a sheet mounted inside front wrapper).

FINE ASSOCIATION COPY OF THE VERY RARE FIRST COMPLETE PUBLICATION OF HUTTON'S REVOLUTIONARY THEORY OF THE EARTH AS A UNITARY SYSTEM. "Hutton's theory... was first made public at two meetings of the Royal Society of Edinburgh, early in 1785. The society published it in full in 1788 [in the *Transactions of the Royal Society of Edinburgh*], but offprints of this paper were in circulation in 1787, and possibly in 1786" (DSB). D. R. Dean states that the offprint was published at some time after January 1786, and cites "a small number of copies dated 1786," of which only one is presently known, as well as a few dated 1788 (*James Hutton and the History of Geology*, p. 25). This undated copy is most likely from the earliest issue, intended for private distribution by the author. Hutton's theory "first appeared in print in a condensed form, in a thirty-page pamphlet entitled *Abstract of a Dissertation... Concerning the System of the Earth...* which Hutton circulated privately in 1785" (DSB). According to Hutton's biographer E. B. Bailey, the abstract was written by John Playfair, author of the *Illustrations of the Huttonian Theory of the Earth*, 1802 (see lot 727), a work that served to disseminate Hutton's ideas.

Hutton's theory — which he invariably referred to as a "system," the title "Theory of the Earth" having been applied to the work by the editors of the Edinburgh *Transactions* — postulated a cyclical history of the earth in four stages, consisting of erosion, deposition of the eroded land as strata at the bottom of the ocean, compression of the strata under the heat which lies beneath the earth's crust, and the fracturing and re-emersion of the fused sediments to form new continents. The revolutionary nature of Hutton's system lay in its cyclical view of geologic processes - "a principle now accepted as axiomatic" (DSB), in its rejection of the catastrophic view of the processes of geological evolution, and in its focus on the materials of the earth itself as adequate testimony to a continuous and uniform process of change. Hutton's methodology reflected this view and was of nearly equal import for the development of geology. He had formulated his theory by employing essentially the same methods used by modern field geologists: "He examined many different types of rocks, paying attention to their structural relations one to another; and he considered in detail the mineralogical and chemical composition of individual rocks. He also studied intensively the physical processes now operating on the earth's surface... In constructing his theory, Hutton had used as a working hypothesis the assumption, based on his own observations, that the geological evidence provided by surface rocks provided both a key to the past and an indication of the future course of events. His theory forumulated for the first time the general principle that some fifty years later came to be known as uniformitarianism" (DSB). Hutton's theory was met with widespread criticism, and it was to defend himself against charges of atheism that he published the expanded two-volume version of his work in 1795, which consists largely of supporting proofs that had been omitted from his succinct initial presentation. His theories did not begin to gain general acceptance until after the publication of Lyell's *Principles of Geology* (London, 1830-33), although it was another 30 years before Hutton's theories of the role of erosion were proven correct.

The recipient of this copy, the short-lived Lord Daer, was a close friend of Hutton's, a fellow member of the "Oyster Club," and a fervent supporter of Hutton's theories. Archibald Geikie, in the note pasted inside the front wrapper, describes Daer as a man of generous disposition and liberal social views, and quotes a laudatory poem by Robert Burns "who was captivated by his unassuming manner and modesty." Dibner, *Heralds of Science* 93 (the journal article); Norman 1130.

Estimate: $6,000-8,000



Lord Daer
from the author

THE

THEORY OF THE EARTH,

FROM THE

TRANSACTIONS

OF THE

ROYAL SOCIETY OF EDINBURGH.

○541

HUTTON, James (1726-1797). *Theory of the Earth, with proofs and illustrations.* Edinburgh: William Creech; London: Cadell, Junior and Davies, 1795 [Vols 1 & 2]; London: Harrison & Son for the Geological Society, 1899 [Vol 3]. Volume 3 edited by Sir Archibald Geikie. 3 volumes. 8° (214 x 132 mm) [Vols 1 & 2]; (224 x 144 mm) [Vol 3]. Vol 1: 4 folding engraved plates. Vol 2: 2 folding engraved plates. 19th-century gilt-ruled black morocco, inner gilt dentelles, gilt spines with red leather labels, signed "White, 24 Pall Mall" [Vols 1 & 2]; original blue printed wrappers [Vol 3].

FIRST EDITION. A greatly expanded treatment of the ideas contained in Hutton's presentation to the Royal Society of Edinburgh in 1788, in which he expounded the concept of uniformitarianism - that "the formation of the surface of the earth is one continuous process which can be studied entirely from terrestrial materials without cosmological or supernatural intervention" (PMM). Hutton died before completing the work, which was to have been in four parts, and which consists largely of supporting proofs and illustrations of the theory set forth in his initial paper. His unfinished manuscript of six chapters was published as Volume 3 posthumously. PMM 247; Norman 1131.

(3)

Estimate: $2,000-3,000

○542

HUYGENS, Christiaan (1629-1695). *Systema Saturnium, sive de causis mirandorum Saturni phaenomenon, et comite ejus planeta novo.* The Hague: Adrian Vlacq, 1659.

4° (191 x 140 mm). One folding engraved plate, 11 engravings in text, 8 woodcut text diagrams, woodcut initials. (First and last leaves slightly soiled and foxed, marginal discoloration throughout, small wormtrack in gutters, catching a few letters in quires C and D, slight fraying to edges of last 2 leaves.) Contemporary blind-panelled calf (rebacked, worn).

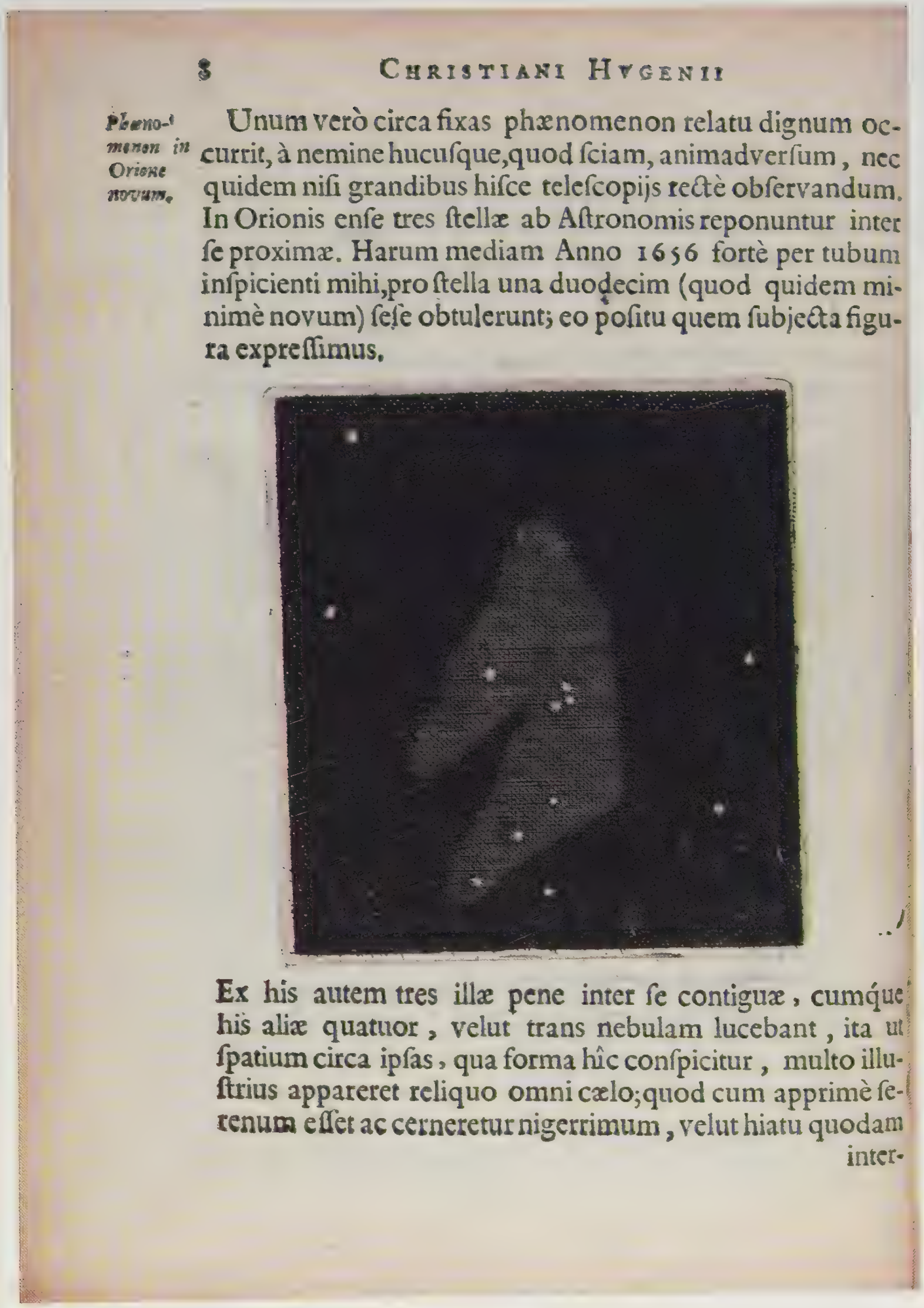
FIRST EDITION of the first full announcement of Huygens' discovery of the ring and satellite of Saturn. The mystery of Saturn's "arms" had puzzled astronomers in the decades following Galileo's observation in 1610 of the planet's oval shape. Starting in the 1650s, Huygens and his brother Constantijn acquired great skill in the grinding and polishing of spherical lenses, and the telescopes that they built were the best of their time. In 1655, using their first greatly improved telescope, Huygens spotted a satellite of Saturn, later named Titan. Although still unable to physically make out the cause of Saturn's odd and variable shape, Huygens theorized that it was due to a single flat ring, whose inclination to the line of sight varies. "He arrived at this solution partly through the use of better observational equipment, but also by an acute argument based on the use of the Cartesian vortex (the whirl of 'celestial matter' around a heavenly body supporting its satellites)" (DSB). In 1656 Huygens presented his theory in a one-sentence anagram included in Pierre Borel's *De vero telescopii inventore* (see lot 311), thus securing priority of the discovery. The *Systema Saturnium* contains as well "many other observations on the planets and their satellites, all contributing to an emphatic defense of the Copernican system," and an observation and illustration of the Orion nebula. Dibner *Heralds of Science* 9; Norman 1136.

[*With:*]

HUYGENS. "Nouvelle invention d'un niveau a lunette qui porte sa preuve avec soi, & que l'on vérifie & rectifie d'un seul endroit" [Extract from: *Journal des sçavans*. Paris: chez Jean Cusson, 1680]. 4°, 2 conjugate leaves, signature F^2, with title-leaf from the *Journal*. Engraved text illustration. (Light foxing.) A description of one of the Huygens' telescopes, this one with an attached levelling device. Norman 1138.

(2)

Estimate: $6,000-8,000



8 CHRISTIANI HVGENII

Phænomenon in Orione novum.

Unum verò circa fixas phænomenon relatu dignum occurrit, à nemine hucuſque, quod ſciam, animadverſum, nec quidem niſi grandibus hiſce teleſcopijs rectè obſervandum. In Orionis enſe tres ſtellæ ab Aſtronomis reponuntur inter ſe proximæ. Harum mediam Anno 1656 fortè per tubum inſpicienti mihi, pro ſtella una duodecim (quod quidem minimè novum) ſeſe obtulerunt; eo poſitu quem ſubjecta figura expreſſimus.

Ex his autem tres illæ pene inter ſe contiguæ, cumque his aliæ quatuor, velut trans nebulam lucebant, ita ut ſpatium circa ipſas, qua forma hîc conſpicitur, multo illuſtrius appareret reliquo omni cælo; quod cum apprimè ſerenum eſſet ac cerneretur nigerrimum, velut hiatu quodam inter-

542 (actual size)

543

HUYGENS, Christiaan (1629-1695). *Horologium oscillatorium sive de motu pendulorum ad horologia aptato demonstrationes geometricae*. Paris: F. Muguet, 1673.

2° (313 x 207 mm). Ornamental royal armorial woodcut device on title, one full-page woodcut of the pendulum, approximately 100 woodcut diagrams in text, woodcut head- and tail-pieces and initials. (Small tears to lower fore-corner of title, tiny rust hole to Q3 catching a letter on verso, occasional very light foxing.) Contemporary calf, spine gilt, edges red-sprinkled (extremities a bit rubbed with trifling loss of leather at corners of upper cover).

Provenance: Jacques Ozanam (1640-1717?), French mathematician, PRESENTATION COPY FROM THE AUTHOR (signature on front free endpaper, inscription on title in Ozanam's hand, "Ex dono clarissimi Authoris") ; Comte du Girardin (engraved armorial booklabel on title).

VERY FINE PRESENTATION COPY OF THE FIRST EDITION OF HUYGENS' MOST IMPORTANT WORK, containing the first mathematical analysis of the motion of the pendulum, and a general treatise on the dynamics of bodies in motion. Huygens constructed the first pendulum clock in 1657, an idea already put forth by Galileo, who had noted the isochronism of the pendulum (its property of swinging in a constant time, regardless of the width of the swing). The idea was a brilliant solution to the problems of keeping time aboard ship, since a reliable time-keeping device was essential for determining longitude, a problem of acute importance in 17th-century Holland, and Huygens' invention, described in the *Horologium*, was hugely successful - by 1658 pendulums were even applied to the tower clocks of Scheveningen and Utrecht.

In the *Horologium* Huygens broadened his mathematical analysis of the pendulum's movement from a central exposition of the isochronism of the cycloid (a discovery which he had called "the most fortunate finding which ever befell me" [DSB]) to a general mathematical discussion of the laws of motion. He focussed on the properties of curves, including the theory of the evolutes of curves and the fall of bodies along curves, and determined the first exact value of the intensity of the force of gravity by using a compound pendulum. The treatise "was the most original work of this kind since Galileo's *Discorsi*.... It ends with 13 theorems (without proofs) on the dynamics of circular motion. Newton in the *Principia* acknowledges Huygens's priority here, though Huygens's work had little influence on his own" (PMM). Reciprocally, while acknowledging the importance of the *Principia*, Huygens later positioned himself in opposition to Newton, whose theories were irreconcilable with Huygens's adherence to a strictly mechanistic philosophy of the laws of nature (see lot 544). His *Horologium* was nonetheless "a work of the highest genius which has influenced every science through its mastery of the principles of dynamics. It is second in scientific importance perhaps only to the *Principia*" (Charles Singer, *A short history of science to the nineteenth century*, 1941, p. 258).

As the most illustrious member of the new Académie Royale des Sciences (founded in 1666), Huygens published the *Horologium* under the patronage of Colbert and Louis XIV, to whom he dedicated the work. He lived almost entirely in Paris from 1666 to 1681, throughout the war between the Dutch republic and the French and English, and it must have been during this period that he made the acquaintance of the Lyonese mathematician Jacques Ozanam, author of the frequently reprinted *Récréations mathématiques et physiques* (Paris, 1694) and numerous other popular reference works on "useful and practical mathematics" for the layman.

Dibner, *Heralds of Science* 145; Grolier/Horblit 53; PMM 154; Norman 1137.

Estimate: $30,000-40,000

Ex dono clariſſimi Authoris.

CHRISTIANI
HVGENII
ZVLICHEMII, CONST. F.

HOROLOGIVM OSCILLATORIVM
SIVE
DE MOTV PENDVLORVM AD HOROLOGIA APTATO DEMONSTRATIONES GEOMETRICÆ.

PARISIIS,
Apud F. Muguet, Regis & Illuſtriſſimi Archiepiſcopi Typographum,
viâ Citharæ, ad inſigne trium Regum.
MDCLXXIII.
CVM PRIVILEGIO REGIS.

ɔ544

HUYGENS, Christiaan (1629-1695). *Traité de la lumière... Avec un discours de la cause de la pesanteur.* Leiden: Pieter vander Aa, 1690. 4° (225 x 189 mm). 2 parts in one, part 2 separately titled, continuously paginated, general title printed in red and black, both titles with printer's woodcut device, woodcut head-pieces and initials, 89 woodcut diagrams in the text, a few repeated. (Paper flaw causing small hole to A4 affecting a letter, small hole to N2 catching 2 letters, short marginal tear to B4, occasional light mostly marginal spotting or foxing.) Contemporary blind-panelled vellum over pasteboard (somewhat soiled, covers bowed, small tears to spine); modern red morocco felt-lined folding case.

Provenance: [Nicolas Frémont?] d'Ablancourt (author's presentation inscription "Pour Monsieur d'Ablancourt" on title, a few authorial emendations to diagrams and text); 18th- or 19th-century shelfmark "W.4.10" on title and front pastedown.

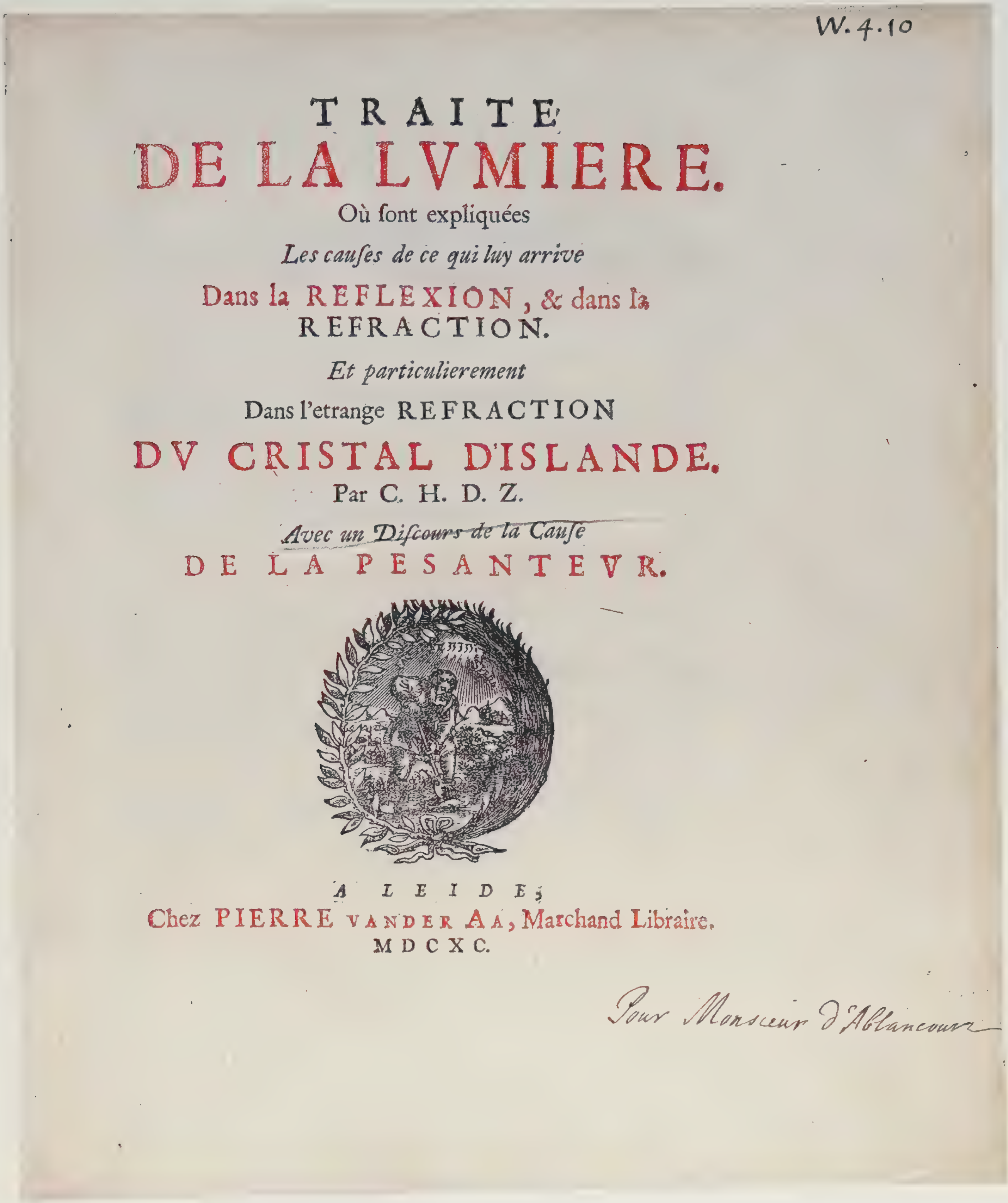
PRESENTATION COPY OF THE FIRST EDITION, LARGE-PAPER ISSUE of Huygens' pathbreaking exposition of his wave or pulse theory of light. Huygens had developed his theory of light in 1676 and 1677, and completed his *Traité de la lumière* in 1678. He read portions of the treatise to the Academy during the following year but left it unpublished, until Newton's *Principia* (1687) and a visit with Newton in 1689 stimulated him to have it printed at last. "Light, according to Huygens, is an irregular series of shock waves which proceeds with very great, but finite, velocity through the ether. This ether consists of uniformly minute, elastic particles compressed very close together. Light, therefore, is not an actual transference of matter but rather of a 'tendency to move,' a serial displacement similar to a collision which proceeds through a row of balls... Huygens therefore concluded that new wave fronts originate around each particle that is touched by light and extend outward from the particle in the form of hemispheres..." (DSB). Huygens was able to explain reflection and refraction using this theory, of which he became completely convinced in August 6, 1677, when he found that it explained the double refraction in Iceland spar. His view of light was opposed to the corpuscular theory of light advanced by Newton.

In the second part of the work, the *Discours de la cause de la pesanteur*, written in 1669, Huygens expounded his vortex theory of gravity, a purely mechanistic theory that also contrasted markedly with Newton's notion of a universal attractional force intrinsic to matter. Indeed, Huygens added to the original treatise of 1669 a review of Newton's theory, rejecting it out of hand because of the impossibility of explaining it by any mechanical principle or law of motion. Huygens' work fell into oblivion during the following century, but his theory of light was confirmed at the beginning of the 19th century by Thomas Young, who used it to explain optical interference, and by Jean-Augustin Fresnel a few years later. Modern physics has reconciled Newton's and Huygens' theories in discerning both corpuscular and wave characteristics in the properties of light.

The titles of this copy are in the probable earlier state, giving only the author's initials, as in the large-paper copy described by Horblit. The paper bears a watermark of crowned powder horn and pendant initials (resembling but not identical to Churchill 316), also as in the Horblit large-paper copy. The text has been emended, with an additional qualifying statement, on p. 110, presumably by the author. Three woodcut diagrams, on pp. 80, 109 and 110, have also been slightly corrected by the same hand. The recipient of this copy was probably Nicolas Frémont d'Ablancourt (1625?-1693), author of the *Dialogues de la santé* (1683), a history of Portugal (1701), and various small literary pieces, maître d'hotel ordinaire du roi from 1650, and French ambassador to Portugal from 1659 to 1665.

Dibner, *Heralds of Science* 145; *En français dans le texte* 25; Grolier/Horblit 54; NLM/Krivatsy 6124; Norman 1139.

Estimate: $30,000-40,000



W.4.10

TRAITE
DE LA LVMIERE.

Où ſont expliquées
Les cauſes de ce qui luy arrive
Dans la REFLEXION, & dans la
REFRACTION.
Et particulierement
Dans l'etrange REFRACTION
DV CRISTAL D'ISLANDE.

Par C. H. D. Z.

Avec un Diſcours de la Cauſe
DE LA PESANTEVR.

A LEIDE,
Chez PIERRE VANDER AA, Marchand Libraire.
MDCXC.

Pour Monsieur d'Ablancourt

545

INGEN-HOUSZ, Jan (1730-1799). *Experiments upon Vegetables, discovering their great Power of purifying the common Air in the Sun-shine, and of injuring it in the Shade and at Night.* London: for P. Elmsly and H. Payne, 1779.

8° (210 x 122 mm). Engraved folding plate, additional engraved folding portrait. Contemporary sprinkled calf gilt (lacks lettering piece on spine). *Provenance:* L.H.S. Duroure (signature on title dated 1787); James Brodie of Brodie (engraved armorial bookplate).

FIRST EDITION. Ingen-Housz's work on photosynthesis is thought to have been stimulated by Priestley's investigations. In the above publication he "advanced the understanding of the subject considerably. He established that only the green parts of a plant can 'restore' the air, that they do this only when illuminated by sunlight, and that the active part of the sun's radiation is in the visible light and not in the heat radiation. In addition he found that plants, like animals, exhibit respiration, that respiration continues day and night, and that all parts of the plant - green as well as nongreen, flowers and fruits as well as roots - take part in the process" (DSB). Dibner *Heralds of Science* 29; Henrey 866; Garrison-Morton 103; Grolier/Horblit 55; Wellcome III, p. 329; Norman 1141.

[*With:*] INGEN-HOUSZ. *Expériences sur les Végétaux...* Paris: Théophile Barrois the younger, 1787-89. 2 volumes. 8° (195 x 126 mm.) Engraved folding plate. Contemporary mottled calf, spines gilt. Third enlarged edition in French. Norman 1142.

(3)

Estimate: $1,000-1,500

546

INGEN-HOUSZ, Jan (1730-1799). *An Essay on the Food of Plants and the renovation of Soils.* N.p., n.d. [London, 1796].

4° (255 x 209 mm). Contemporary plain blue wrappers (small circular burn-hole on upper cover).

Provenance: Prince de Rosemberg (presenation inscription from the author on front wrapper); Bergrath Heitener (signature on front wrapper); J. Christian Bay, who used this copy for his 1933 reprint of Ingen-Housz's *Essay* (see below).

FIRST EDITION, PRESENTATION COPY. "Ingen-Housz's last work was a sequel to his *Experiments on vegetables,* summarizing the results of his research on photosynthesis and reinterpreting his findings in the light of Lavoisier's new oxygen-based chemistry" (Norman). VERY RARE. Norman 1143.

[*With:*]

An Essay on the Food of Plants... London, 1933. 4°. Original wrappers. Reprint. One of 100 copies for private distribution. J. Christian Bay used the copy above for this reprint edition. A printed tipped-in statement by Bay reads: "of the original, printed in London, in 1796, two copies are known, one in the British Museum (Natural History), the other in a private library..."

(3)

Estimate: $1,000-1,500

547

ITARD, Jean Marie Gaspard (1774-1838). *De l'éducation d'un homme sauvage, ou des premiers développemens physiques et moraux de jeune sauvage de l'Aveyron.* Paris: Goujon fils, 1801.

8° (192 x 122 mm). Engraved portrait frontispiece. Modern marbled boards.

FIRST EDITION, signed by author and publisher on verso of the title-page (presumably to prevent piracy). "A pupil of Pinel, Itard pioneered in the attempt to educate a young 'wild boy' who had lived since infancy entirely apart from human contact. In adapting the methods of teaching deaf-mutes to his extraordinary pupil, Itard created a new system of pedagogy which has profoundly influenced modern educational methods" (Garrison-Morton). Garrison-Morton 4969.1; Norman 1144.

[*With*]:

ITARD. *Rapport fait à son excellence le Ministre de l'Intérieur, sur les nouveaux développemens et de l'état actuel du sauvage de l'Aveyron.* Paris: Imprimerie Impériale, 1807. 8° (207 x 124 mm). Modern quarter morocco. FIRST EDITION, of the second account, in which "Itard regretfully concluded that the boy was incapable of learning speech and that some of the effects of prolonged isolation are irreversible" (Garrison-Morton). See Garrison-Morton 4969.1 (note); Norman 1145.

(2)

Estimate: $2,000-3,000

○548

ITARD, Jean Marie Gaspard (1774-1838). *Traité des maladies de l'oreille et de l'audition.* Paris: Méquignon-Marvis, 1821.

2 volumes, 8° (197 x 123 mm). 3 engraved folding plates. Contemporary red quarter sheep, redish boards and vellum corners.

Provenance: Itard family (presentation inscription from the author to his cousin on the half-title of Vol. I: "De la part de l'auteur à son cousin Itard").

FIRST EDITION, PRESENTATION COPY TO HIS COUSIN of the first modern textbook on otology. Itard outlines a system of classification of ear diseases, and introduced new therapeutic techniques. Garrison-Morton 3364; *Heirs of Hippocrates* 1292; Waller 5080; Wellcome III, p. 334; Norman 1147.

(2)

Estimate: $800-1,200

○549

ITARD, Jean Marie Gaspard (1774-1838). *Traité des maladies de l'oreille et de l'audition.* Paris: Méquignon-Marvis, 1821.

2 volumes, 8° (214 x 138 mm., uncut). 3 engraved folding plates. Later boards, old paper spine label laid down. *Provenance*: Joseph Claude Anthelm Récamier (1774-1852), the first to recognize the process of metastasis in cancer [see Garrison-Morton 2610] (bookplate on half-title verso).

FIRST EDITION. JOSEPH CLAUDE ANTHELM RÉCAMIER' COPY of the first modern textbook on otology. Garrison-Morton 3364; *Heirs of Hippocrates* 1292; Waller 5080; Wellcome III, p. 334; Norman 1146.

(2)

Estimate: $600-800

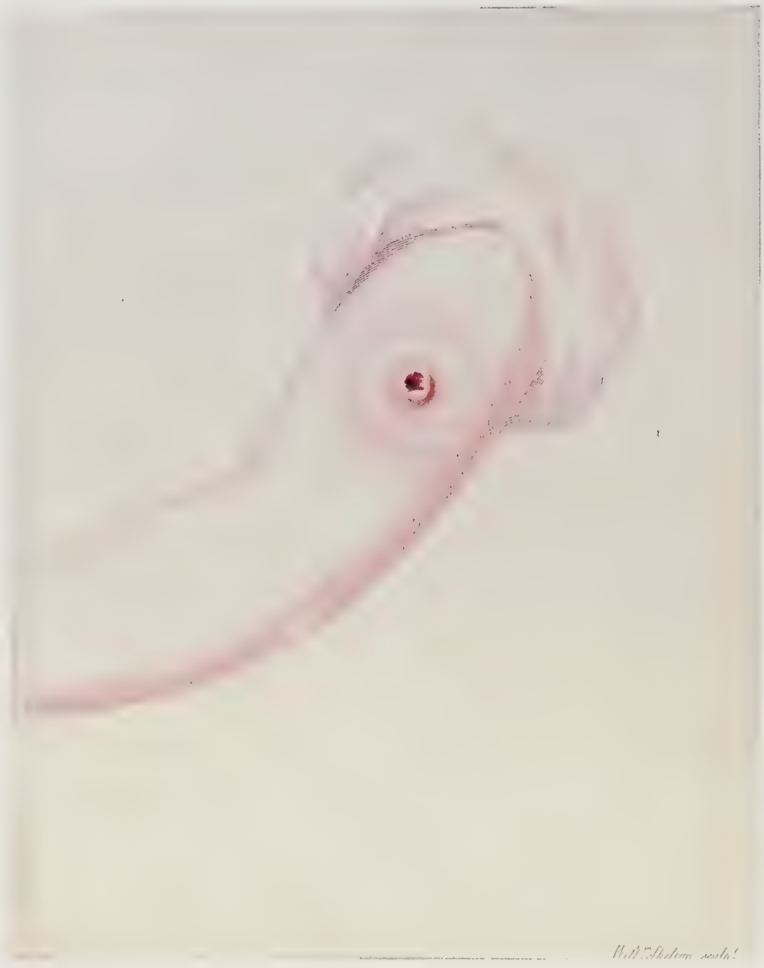
○550

JEFFRIES, John (ca. 1744-1819). *A Narrative of the Two Aerial Voyages of Doctor Jeffries with Mons. Blanchard; with meteorological observations and remarks.* London: for the author, 1786.

4° (286 x 226 mm). Stipple-engraved frontispiece portrait by Caroline Watson (1761-1814) after drawing by F. Russell, one engraved plate. Original plain blue wrappers, stabbed as issued, uncut (chipped along spine).

FIRST EDITION. Jeffries, a physician, was born in Boston, attended Harvard and earned a medical degree in Aberdeen, Scotland. When the Revolution broke out he was among the British army in the Savannah and Charleston compaigns. He returned to England after the war and became interested in aerostation. "He seems to have been the first to attempt to gather scientific data of the free air. His observations were made with care, and since he had sufficient means, he was able to secure instruments of high grade. His flights were made with the French aeronaut Blanchard, who received distinguished honors, but it was Jeffries who paid the bills, accepted the responsibility, and made the observations" (DSB). This work documents their two ascents, one over London on 30 November 1784, and the other across the English Channel on 7 January 1785; both were made for scientific purposes and their results were presented to the Royal Society. Jeffries brought an array of scientific instruments to make observations of temperature, air pressure and humidity. Jeffries *Narrative* documents "the first flight by a physician, the first crossing of the English channel by balloon, and the first international flight" (Garrison-Morton). Garrision-Morton 2137.2; Hodgson, pp. 167-171; Norman 1159.

Estimate: $2,000-3,000

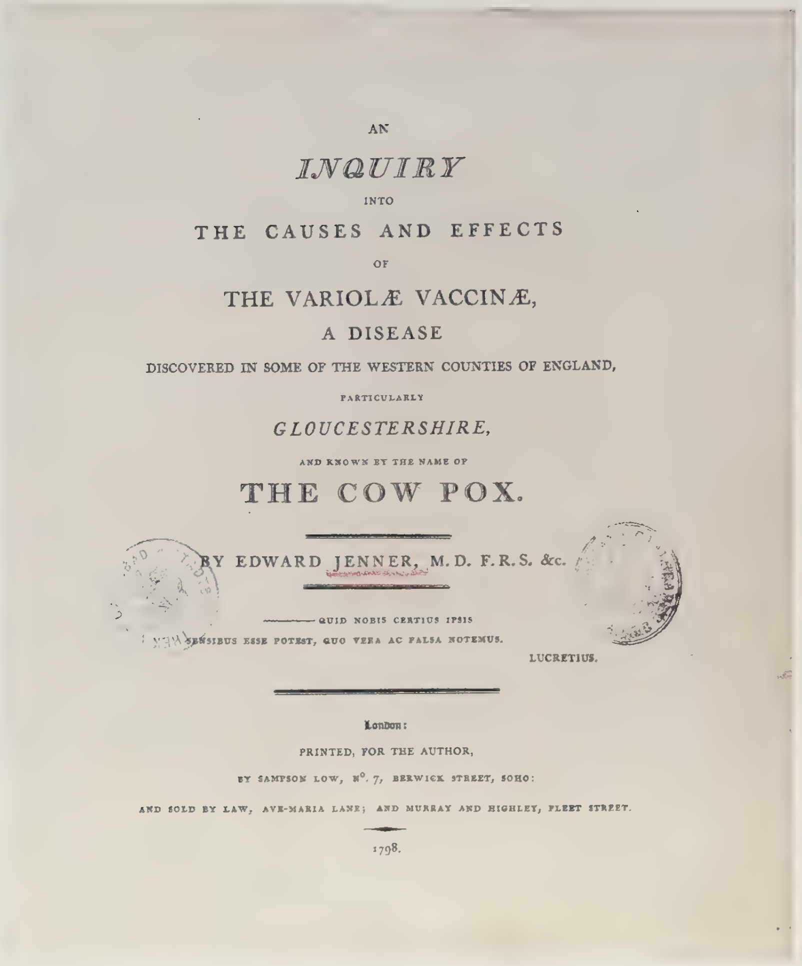


○551

JENNER, Edward (1749-1823). *An Inquiry into the Causes and Effects of the Variolae Vaccinae, a Disease discovered in some of the Western Counties of England, particularly Gloucestershire, and known by the name of the Cow Pox.* London: Sampson Low, for the author, 1798.

4° (244 x 207 mm). 4 engraved plates by William Skelton, color-printed in sanguine and enhanced with some hand-coloring (artist's name cropped off or shaved). Half title, errata leaf. (Some very light browning and occasional foxing to text, tiny marginal hole to H3.) Contemporary half German parchment, blue paste boards. *Provenance*: Municipal Library of Karlsbad (inscription recording presentation by Jenner's disciple Giovanni de Carro of Vienna, bookplate, 2 stamps, an engraved portrait of de Caro inserted).

FIRST EDITION OF A MEDICAL CLASSIC, ANNOUNCING "ONE OF THE GREATEST TRIUMPHS IN THE HISTORY OF MEDICINE" (Garrison-Morton), and "the basis of the modern science of immunology" (PMM). Attempts to use mild strains of the disease to inoculate against smallpox had begun in India, China, and Turkey, and this still-dangerous and unreliable "variolation" was brought to England in 1718. Jenner, a country paractitioner in Berkeley, Gloucestershire, became curious about the country wisdom that milkmaids who contracted cowpox, a common and non-fatal infection transferred from cattle, were safe from smallpox. In 1796, Jenner's experiments confirmed this belief, and in 1798 he published this account of 23 successful vaccinations. "Jenner started one of the greatest practical advances in preventitive medicine and today there are innoculations ... against scarlet fever, typhoid fever, diptheria, whooping-cough and tetanus, as well as ... bubonic plague, cholera and yellow fever" (PMM). The success of Jenner's work led to the announcement of the World Health Organisation in 1980 that natural smallpox had been eradicated. Dibner *Heralds of Science* 127; Garrison-Morton 5423; Grolier *Medicine* 53; *Heirs of Hippocrates* 1086; Grolier/Horblit 56; William Lefanu *A bibliography of Edward Jenner*, 8 (2nd ed., n.p., 1985); PMM 250; Wellcome III, p. 351; Norman 1162.



AN

INQUIRY

INTO

THE CAUSES AND EFFECTS

OF

THE VARIOLÆ VACCINÆ,

A DISEASE

DISCOVERED IN SOME OF THE WESTERN COUNTIES OF ENGLAND,

PARTICULARLY

GLOUCESTERSHIRE,

AND KNOWN BY THE NAME OF

THE COW POX.

BY EDWARD JENNER, M.D. F.R.S. &c.

——— QUID NOBIS CERTIUS IPSIS
SENSIBUS ESSE POTEST, QUO VERA AC FALSA NOTEMUS.
LUCRETIUS.

London:
PRINTED, FOR THE AUTHOR,
BY SAMPSON LOW, Nº. 7, BERWICK STREET, SOHO:
AND SOLD BY LAW, AVE-MARIA LANE; AND MURRAY AND HIGHLEY, FLEET STREET.

1798.

[*Bound with*:]

JENNER, Edward. *Further Observations on the Variolae Vaccinae, or Cow Pox*. London: Sampson Low, for the author, 1799.

4°. Half title. (Upper left corner of title repaired, some minor foxing to half title, title and text, some spotting to I4.) FIRST EDITION. Jenner's first reply to critics, explaining common mistakes (such as the failure to recognise the symptoms of true cowpox, leading to ineffectual inoculations), and considering differences between inoculations in London and in the countryside. Lefanu, *Jenner*, 52; Wellcome III, p. 351; Norman 1168.

[*Bound with*:]

JENNER, Edward. *A Continuation of Facts and Observations relative to the Variolae Vaccinae or Cow Pox*. London: Sampson Low for the author, 1800. 4°. Half title (occasional minor foxing). FIRST EDITION. Including further reports of successful inoculations, and with the justifiably ebulliant conclusion "May I not with perfect confidence congratulate my country and society at large in their beholding, in the mild form of the Cow Pox, an antidote that is capable of extirpating from the earth a disease that is every hour devouring its victims; a disease that has ever been considered as the severest scourge of the human race!". Lefanu *Jenner*, 58; Wellcome III, p. 351; Norman 1169.

Estimate: $8,000-12,000

›552

JENNER, Edward (1749-1823). *Further observations on the variolae vaccinae, or cow pox.* London, for the author by Sampson Low, 1799.

4° (281 x 222 mm). Half title. (Some minor soiling and foxing.) Stabbed, as issued, uncut; half morocco folding case. *Provenance*: Francis Knight (presentation inscription from the author).

FIRST EDITION, PRESENTATION COPY. Lefanu, *Jenner*, 52; Wellcome III, p. 351; Norman 1167.

Estimate: $1,500-2,000

›553

JENNER, Edward (1749-1823). *An Inquiry into the Causes and Effects of the Variolae Vaccinae, a Disease discovered in some of the Western Counties of England, particularly Gloucestershire, and known by the name of Cow Pox. -Further Observations on the Variolae Vaccinae. -A Continuation of Facts and Observations relative to the Variolae Vaccinae, or Cow Pox.* London: Sampson Low, for the author, 1800.

4° (259 x 206 mm). 4 engraved plates by William Skelton printed in color and enhanced with hand-coloring, with original tissue guards (artist's name cropped from plates). First and second works with half-titles, third work with separate title and half-title, errata leaf at end. (Some minor light browning and foxing, a few minor marginal tears, one on T1 just touching a letter.) Contemporary half calf, marbled boards, gilt-ruled spine with black leather label. *Provenance*: Joseph Fox, possibly either Joseph Fox M.D., author of *A new Medical Dictionary*, London: 1803, or Joseph Fox M.R.C.S., author of *The natural history of the human teeth*, London: 1803 (presentation inscription from the author).

PRESENTATION COPY. Second edition of all parts, FIRST COMPLETE EDITION OF TEXTS. Lefanu, *Jenner*, 24; Wellcome III, p. 351; Norman 1163.

Estimate: $3,000-4,000

›554

JENNER, Edward (1749-1823). *An inquiry into the causes and effects of the variolae vaccinae. -Further observations on the Variolae Vaccinae. -A Continuation of Facts and Observations relative to the Variolae Vaccinae, or Cow Pox.* London: for the author by D.N. Shury, 1801.

4° (259 x 208 mm). 4 engraved plates by William Skelton printed in color, enhanced with hand-coloring (artist's name cropped off, light browning to Plate 1, and some minor browning to others). Half title to second part, title to third part. (Some minor browning and foxing to first and second parts). Modern calf antique. Third edition of all parts, second complete edition. Lefanu, *Jenner*, 25; Norman 1164.

Estimate: $1,000-2,000

›555

JENNER, Edward (1749-1823). *The origin of the vaccine inoculation.* London: D.N. Shury, 1801.

4° (249 x 204 mm). (Very minor foxing to title). Modern blue wrappers, black cloth case.

FIRST EDITION. Jenner's account of his research previous to his 1798 and subsequent publications on the variolae vaccinae, recording that the matter first came to his attention 25 years previously. This paper was submitted to Parliament in 1802, when Jenner requested a grant for the public service rendered. He was awarded £10,000. Lefanu, *Jenner*, 63; Norman 1170.

Estimate: $600-800

ɔ556

JENNER, Edward (1749-1823). *An Inquiry into the Causes and Effects of the Variolae Vaccinae.* Springfield [Mass.]: Ashley & Brewer for Dr. Samuel Cooley, 1802.

8° (150 x 91 mm). 4 engraved plates by A. Reed printed in color, enhanced with some hand-coloring (foxed). (Some browning to text; corner torn off D2). Half morocco antique, marbled boards. *Provenance*: M.M. Reed (inscription, occasional pencil marginalia).

FIRST AMERICAN EDITION, from second edition. The artist, A. Reed, is probably the American painter and engraver Abner Reed (1771-1866). Lefanu, *Jenner*, 1165; Norman 1165.

Estimate: $800-1,200

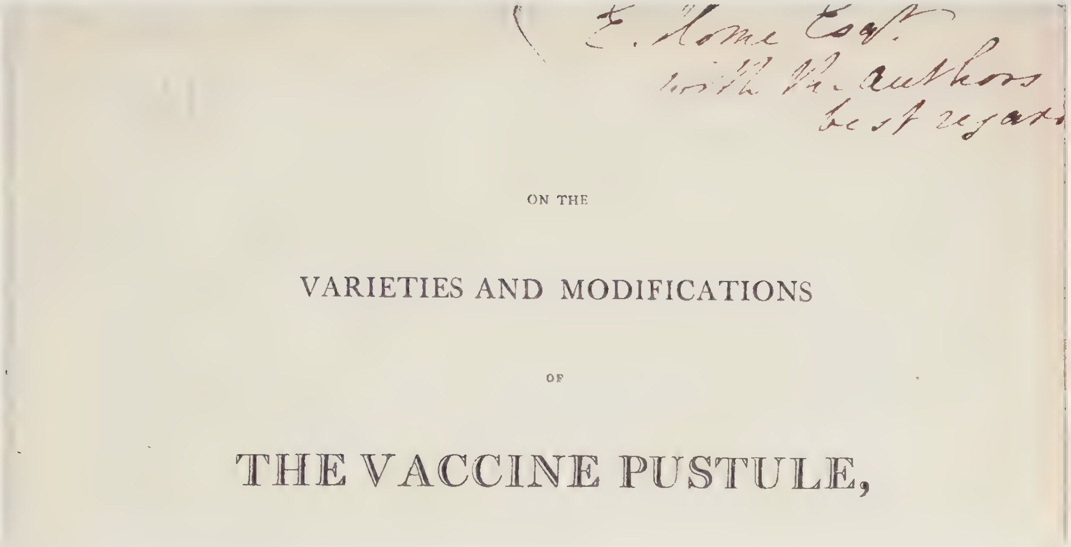
ɔ557

JENNER, Edward (1749-1823). *On the Varieties and Modifications of the Vaccine Pustule, occasioned by a Herpetic State of the Skin.* Cheltenham: H. Ruff, 1806.

4° (255 x 205 mm). Disbound; cloth slipcase. *Provenance*: EVERARD HOME (1756-1832), sergeant-surgeon to the King and a fellow student of Jenner's under John Hunter (presentation inscription from the author [shaved]).

FIRST SEPARATE EDITION. PRESENTATION COPY. Jenner realised that herpes could inhibit the cow pox vaccination. The essay was first published in 1804, in the *Medical and Physical Journal*. Lefanu, *Jenner*, 98; Norman 1171.

Estimate: $800-1,200



E. Home Esq.
with the authors
best regard

ON THE

VARIETIES AND MODIFICATIONS

OF

THE VACCINE PUSTULE,

557 (detail)

ɔ558

JONES, John (1729-1791). *Plain concise practical remarks on the treatment of wounds and fractures; to which is added, a short appendix on camp and military hospitals; principally designed for the use of young military surgeons, in North-America.* New York: John Holt, 1775. 8° (216 x 126 mm). Collation: *A*^{4} B-L^4 *M*^{4} N^4 +^{2} (*A*1r title, *A*1v blank, *A*2r preface, "To the students and young practitioners in surgery," B3r text, N4r blank, N4v advertisement of Donald M'Lean, Apothecary and Druggist in New York, +1r author's dedicatory letter to Dr. Thomas Cadwalader, dated 12 October 1775, +2v blank). 54 leaves. Stipple-engraved portrait of the author signed "Leney," from *The American Medical and Philosophical Register* (probably from the 1813 issue which carried an article on Jones), inserted before the title. This copy without the errata slip (see below). (Some light foxing and browning, a few leaves spotted, printing flaw on *A*2v causing omission of part of last line and catchword, hole to final blank leaf, marginal nicks to last 3 leaves.) Contemporary marbled paper boards (rebacked in calf); modern half morocco folding case.

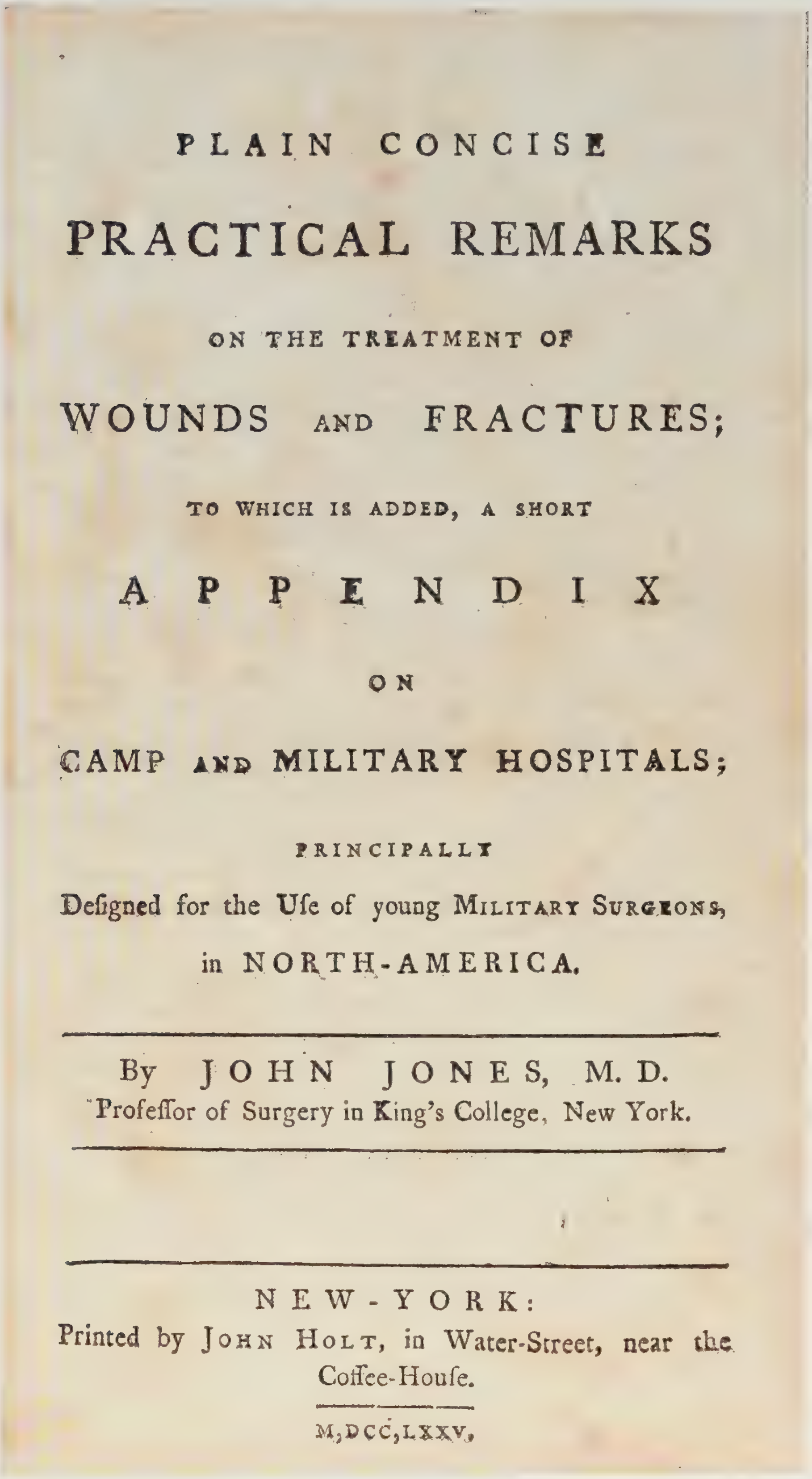
Provenance: John Jones (19th-century? signature on front free endpaper,, textual corrections on pages 8, 11, 16, 30 and 38 in brown ink in the same hand); Samuel Smith Purple (1822-1900), a founder of the New York Academy of Medicine and one of the earliest collectors of American medical imprints, whose library was bequeathed to the Medical Society of the County of Kings (Brooklyn Academy of Medicine); unidentified owner (Christie's New York, 11 June 1982, lot 334).

VERY RARE FIRST EDITION OF THE FIRST AMERICAN WORK ON MILITARY MEDICINE AND THE FIRST TREATISE ON SURGERY WRITTEN BY AN AMERICAN AND PRINTED IN NORTH AMERICA. Jones, who was born in Jamaica, Long Island, initiated his medical training under his uncle the Philadelphia physician Thomas Cadwalader, author of an early treatise on lead poisoning (see lot 347) and dedicatee of the present work. He completed his education in Europe, where he studied under William Hunter and Percival Pott in London and under Petit and Henri François Le Dran in Paris. He settled in New York as a surgeon and obstetrician, and became known as an expert lithotomist. When New York was captured by the British he moved to Philadelphia, where he remained. Largely derived from the work of his teachers Pott and Le Dran, Jones's *Plain concise remarks* proved tremendously useful, in part because of the timing of its publication at the start of the Revolutionary War. The work was expressly intended as a manual for field surgeons: "I flatter myself the apparent necessity for some immediate production of this nature, will apologize for those defects which a discerning reader will readily discover: if any of you, by observing the following rules, should save the life, or even limb of but one citizen, who has bravely exposed himself in defence of his country, I shall think myself richly rewarded for my labour" (p. i). Jones himself played an active role in organizing the medical department of the Continental Army, and his treatise became the *vade mecum* of military surgeons during the war. Jones was a friend of Washington, whom he attended in 1790, and became the personal physician to Benjamin Franklin, whom he attended during his last illness.

Collation of the known copies varies, indicating the possible existence of different states of the first quire. Guerra describes a first quire *A* of 6 leaves, in which the 2-leaf dedication to Thomas Cadwalalder (signed with a dagger in the Norman copy and bound at the end) is apparently printed on *A*2-3 and the preface "To the students..." occupies *A*4-6. The pagination cited by Evans 14134 apparently indicates the same arrangement (Evans 42852, the Dartmouth College copy, seems to be lacking the title-leaf). The errata, not present in this copy, appears both mounted on the verso of the second leaf of the dedication to Cadwalader (Guerra), and as a separate leaf bound at the end.

Austin 1083; Evans 14134 and 42852; Garrison-Morton 2155; Guerra a-570 (listing 9 copies); Sabin 36524; Norman 1176.

Estimate: $8,000-12,000



PLAIN CONCISE
PRACTICAL REMARKS
ON THE TREATMENT OF
WOUNDS AND FRACTURES;
TO WHICH IS ADDED, A SHORT
APPENDIX
ON
CAMP AND MILITARY HOSPITALS;
PRINCIPALLY
Deſigned for the Uſe of young MILITARY SURGEONS,
in NORTH-AMERICA.

By JOHN JONES, M. D.
Profeſſor of Surgery in King's College, New York.

NEW-YORK:
Printed by JOHN HOLT, in Water-Street, near the
Coffee-Houſe.

M,DCC,LXXV,

558 (actual size)

ɔ559

JORDEN, Edward (1569-1632). *A Briefe Discourse of a Disease Called the Suffocation of the Mother.* London: John Windet, 1603.

4° (170 x 124 mm). Woodcut device on title-page. (Title soiled with lower margin chipped and frayed affecting one letter of imprint, other marginal dampstaining and wear, a few headlines shaved.) Modern half red morocco.

FIRST EDITION OF THE FIRST BOOK IN ENGLISH ON HYSTERIA. Written as a rebuttal to James I's *Daemonologie*, this work asserts that the traditional signs of demonaic possession in women were actually the symptoms of a disease of natural origin: "that this disease doth oftentimes give occasion unto simple and unlearned people, to suspect possession, witchcraft, or some such like supernaturall cause." "Jorden introduced into English medicine the ancient concept of hysteria as a disease entity with specific etiology, a sex-linked nervous disorder, the potential imitator of all ills. Its subsequent career forms an important chapter in the history of psychiatry" (Hunter-Macalpine, pp. 69-70). The book concludes with a section on the proper management of the hysterical patient's mental afflictions. Hunter-Macalpine, pp. 68-75; NLM/Krivatsy 6275; STC 14790; Norman 1178.

Estimate: $1,000-1,500

ɔ560

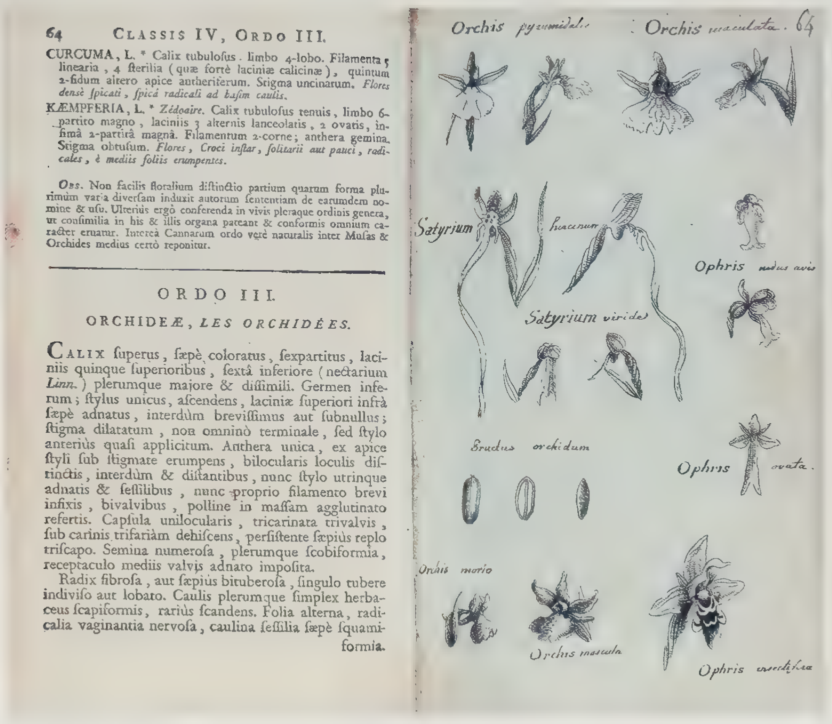
JUNGIUS, Joachim (1587-1657). *Opuscula botanico-physica ex recensione et distinctione Martini Fogelii... et Ioh. Vagetii.* - Giuseppe degli AROMATARI (1587-1660). Epistola de generatione plantarum ex seminibus. Edited by Johann Sebastian Albrecht. Coburg: Georg Otto, 1747.

4° (213 x 171 mm.) 3 small woodcuts on Y1r, woodcut initials and head-pieces. (Slight overall discoloration.) Later boards, title ink-lettered on spine (spine torn, slight wear to extremities); morocco-backed folding case. *Provenance*: 18th-century shelfmark "6453."

Second collected edition of Jungius' two important works on plant morphology, *Isagogae phytoscopia* (1679) and *De plantis doxoscopiae physicae minores* (1662). Jungius, an outstandingly brilliant mathematician, logician, physician and theoretician of science, was attracted to the natural sciences, particularly botany and chemistry, by his passion for systematization. In his botanical work he was the first to develop the ideas of Cesalpino, the pioneer of modern botany. In these two short treatises, published posthumously (as were all his works, for fear of being accused of heresy), Jungius imposed a remarkably modern system of classification on plant life. "He gave botany much of its present nomenclature and provided the clear divisions of botanical interest into plant morphology (structure), physiology, and ecology (relationships). He classified plants by a binomial system, the first being a generic term, the second a descriptive adjective. The great rarity of his writings has hindered the wider adoption of his contributions" (Dibner). His morphological system nonetheless exerted a profound influence on the subsequent course of botanical study, and was adopted by John Ray and Linnaeus. Albrecht's edition also reprints Aromatori's famous letter to Bartholomeo Nanti on the generation of plants from seeds (first printed in 1625).

RARE. Dibner, *Heralds of Science* 23; Pritzel 4524; Norman 1193.

Estimate: $3,000-4,000



64 CLASSIS IV, ORDO III.

CURCUMA, L. * Calix tubuloſus. limbo 4-lobo. Filamenta 5 linearia, 4 ſterilia (quæ fortè laciniæ calicinæ), quintum 2-fidum altero apice antheriferum. Stigma uncinatum. *Flores densè ſpicati, ſpicâ radicali ad baſim caulis.*

KÆMPFERIA, L. * *Zédoaire.* Calix tubuloſus tenuis, limbo 6-partito magno, laciniis 3 alternis lanceolatis, 2 ovatis, infimâ 2-partitâ magnâ. Filamentum 2-corne; anthera gemina. Stigma obtuſum. *Flores, Croci inſtar, ſolitarii aut pauci, radicales, è mediis foliis erumpentes.*

OBS. Non facilis floralium diſtinctio partium quarum forma plurimùm varia diverſam induxit autorum ſententiam de earumdem nomine & uſu. Ulteriùs ergò conferenda in vivis pleraque ordinis genera, ut conſimilia in his & illis organa pateant & conformis omnium caracter eruatur. Intereà Cannarum ordo verè naturalis inter Muſas & Orchides medius certò reponitur.

ORDO III.

ORCHIDEÆ, *LES ORCHIDÉES.*

CALIX ſuperus, ſæpè coloratus, ſexpartitus, laciniis quinque ſuperioribus, ſextâ inferiore (nectarium *Linn.*) plerumque majore & diſſimili. Germen inferum; ſtylus unicus, aſcendens, laciniæ ſuperiori infrà ſæpè adnatus, interdùm breviſſimus aut ſubnullus; ſtigma dilatatum, non omninò terminale, ſed ſtylo anteriùs quaſi applicitum. Anthera unica, ex apice ſtyli ſub ſtigmate erumpens, bilocularis loculis diſtinctis, interdùm & diſtantibus, nunc ſtylo utrinque adnatis & ſeſſilibus, nunc proprio filamento brevi infixis, bivalvibus, polline in maſſam agglutinato refertis. Capſula unilocularis, tricarinata trivalvis, ſub carinis trifariàm dehiſcens, perſiſtente ſæpiùs replo triſcapo. Semina numeroſa, plerumque ſcobiformia, receptaculo mediis valvis adnato impoſita.

Radix fibroſa, aut ſæpiùs bituberoſa, ſingulo tubere indiviſo aut lobato. Caulis plerumque ſimplex herbaceus ſcapiformis, rariùs ſcandens. Folia alterna, radicalia vaginantia nervoſa, caulina ſeſſilia ſæpè ſquamiformia.

0561

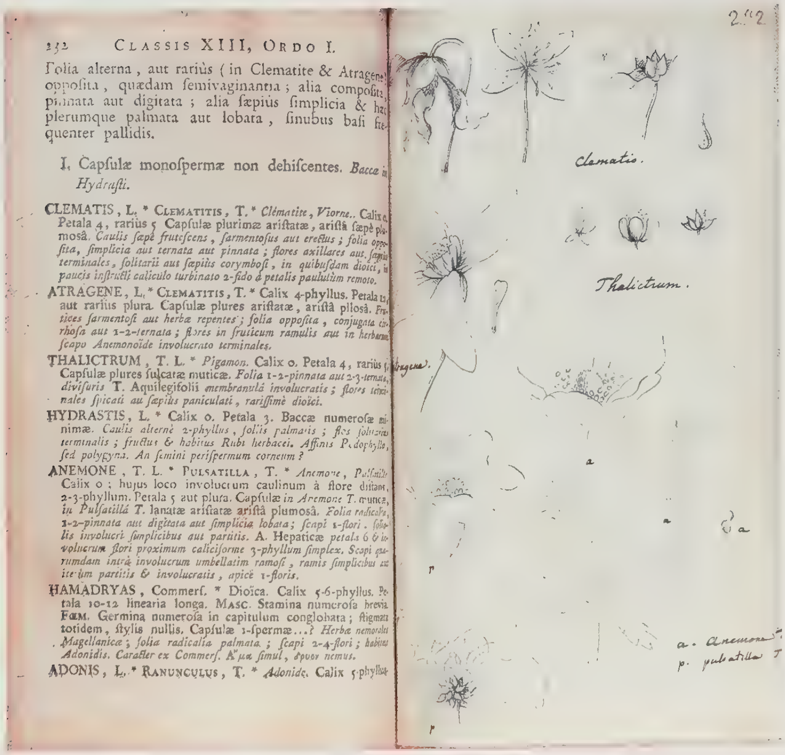
JUSSIEU, Antoine Laurent de (1748-1836). *Genera plantarum secundum ordines naturales disposita.* Paris: Veuve Hérissant and Théophile Barrois, 1789.

8° (195 x 117 mm). Errata leaf at end, woodcut title ornament and tailpieces. INTERLEAVED WITH 76 SHEETS OF BOTANICAL PENCIL AND INK DRAWINGS BY GEORGES CUVIER. (Occasional light spotting, some offsetting from inserted drawings to text, small hole to Bb4 affecting 4 letters, few minor marginal tears.) Inserted lithographed portrait of Jussieu by E. Quenedey. Contemporary French sheep-backed boards, smooth spine gilt in compartments, edges red-stained (rebacked preserving original backstrip, edges slightly rubbed); morocco-backed folding case.

Provenance: GEORGES CUVIER (1769-1832), zoologist, comparative anatomist (signature on title, interleaved botanical sketches [see below], a few marginal notes); Sylvestre François Lacroix (1765-1843), mathematician (unsigned pencil note on front free endpaper stating that this copy, containing drawings by Cuvier, was given to him by Cuvier in exchange for a presentation copy of the same work, with an autograph letter signed [one page, written on the upper half of an octavo sheet] to his fellow mathematician Sophie Germain [1776-1831], dated Paris, 5 April 1830, tipped in to front flyleaf, thanking her warmly for her gift of a copy of the offprint of her *Mémoire sur la courbure des surfaces* [Paris 1830]); list of page numbers of inserted leaves of drawings in an unidentified 19th-century hand, noting a total of 1127 drawings, in red ink and pencil on verso of Lacroix letter, a few underscorings in the same red ink.

EXCEPTIONAL ASSOCIATION COPY OF THE FIRST EDITION OF A FUNDAMENTAL WORK OF MODERN BOTANY, INSCRIBED BY CUVIER AND CONTAINING OVER 1000 FINE BOTANICAL DRAWINGS IN HIS HAND ILLUSTRATING IN DETAIL MANY OF THE PLANT FAMILIES DESCRIBED BY JUSSIEU. Jussieu studied at the Faculté de Médicine in Paris, where his thesis subject was the comparative physiology of animals and plants, before he succeeded his uncle Bernard de Jussieu as professor of botany at the Jardin du Roi. He devoted 15 years to the elaboration of a new system of botanical classification, which he developed from the work of his uncle Bernard, who had arranged the garden at the Trianon according to an unprecedented system of "natural" classification. Building upon the earlier achievements of Linnaeus, but rejecting Linnaeus' artificial sexual classification system, the *Genera plantarum* lay the groundwork for modern botanical classification. For preparation of the work, Jussieu "had at his disposal not only the rich collections of living plants at the royal garden, but also his uncle's and his own rich herbarium, as well as the collections made by Philibert Commerson on his world voyage with

continued



232 CLASSIS XIII, ORDO I.

Folia alterna, aut rariùs (in Clematite & Atragene) oppoſita, quædam ſemivaginantia; alia compoſita, pinnata aut digitata; alia ſæpiùs ſimplicia & hæc plerumque palmata aut lobata, ſinubus baſi frequenter pallidis.

I. Capſulæ monoſpermæ non dehiſcentes. *Baccæ in Hydraſti.*

CLEMATIS, L. * CLEMATITIS, T. * *Clématite, Viorne.* Calix 0. Petala 4, rariùs 5. Capſulæ plurimæ ariſtatæ, ariſtâ ſæpè plumoſâ. *Caulis ſæpè frutеſcens, ſarmentoſus aut erectus; folia oppoſita, ſimplicia aut ternata aut pinnata; flores axillares aut ſæpiùs terminales, ſolitarii aut ſæpiùs corymboſi, in quibuſdam dioici, in paucis inſtructi caliculo turbinato 2-fido à petalis paululùm remoto.*

ATRAGENE, L. * CLEMATITIS, T. * Calix 4-phyllus. Petala 12, aut rariùs plura. Capſulæ plures ariſtatæ, ariſtâ piloſâ. *Frutices ſarmentoſi aut herbæ repentes; folia oppoſita, conjugata cirrhoſa aut 1-2-ternata; flores in fruticum ramulis aut in herbarum ſcapo Anemonoïde involucrato terminales.*

THALICTRUM, T. L. * *Pigamon.* Calix 0. Petala 4, rariùs 5. Capſulæ plures ſulcatæ muticæ. *Folia 1-2-pinnata aut 2-3-ternata, diviſuris* T. Aquilegifolii *membranulâ involucratis; flores terminales ſpicati aut ſæpiùs paniculati, rariſſimè dioïci.*

HYDRASTIS, L. * Calix 0. Petala 3. Baccæ numeroſæ minimæ. *Caulis alternè 2-phyllus, foliis palmatis; flos ſolitarius terminalis; fructus & habitus Rubi herbacei. Affinis Podophyllo, ſed polygyna. An ſemini periſpermum corneum?*

ANEMONE, T. L. * PULSATILLA, T. * *Anemone, Pulſatille.* Calix 0; hujus loco involucrum caulinum à flore diſtans, 2-3-phyllum. Petala 5 aut plura. Capſulæ *in Anemone T.* muticæ, *in Pulſatillâ T.* lanatæ ariſtatæ ariſtâ plumoſâ. *Folia radicalia, 1-2-pinnata aut digitata aut ſimplicia lobata; ſcapi 1-flori, foliolis involucri ſimplicibus aut partitis.* A. Hepaticæ *petala 6 & involucrum flori proximum caliciforme 3-phyllum ſimplex. Scapi quorumdam intrà involucrum umbellatim ramoſi, ramis ſimplicibus aut iterùm partitis & involucratis, apicè 1-floris.*

HAMADRYAS, Commerſ. * Dioïca. Calix 5-6-phyllus. Petala 10-12 linearia longa. MASC. Stamina numeroſa brevia. FŒM. Germina numeroſa in capitulum conglobata; ſtigmata totidem, ſtylis nullis. Capſulæ 1-ſpermæ...? *Herbæ nemorales Magellanicæ; folia radicalia palmata; ſcapi 2-4-flori; habitus Adonidis. Caracter ex Commerſ.* Ἅμα *ſimul,* δρυον *nemus.*

ADONIS, L. * RANUNCULUS, T. * *Adonide.* Calix 5-phyllus

Bougainville; the Commerson collections proved to be of critical improtance for the inclusion of many tropical angiosperm families. Through an exchange of specimens, Jussieu also had part of Joseph Banks's collections from Cook's first voyage [and other collections of new plant species including Michel Adanson's shipments from Sénégal]... The *Genera plantarum*... presented a thorough summary of current knowledge of plant taxonomy. The genera were arranged in a natural system based upon the correlation of a great number of characteristics, a system that proved to be so well designed that within a few decades it was accepted by all leading European botanists... Jussieu's arrangement of families is among those elements of the *Genera plantarum* that remain a part of the contemporary system of classification" (DSB).

Cuvier's inserted botanical drawings consist primarily of small pencil sketches or finished drawings of plant parts. Many of the 76 inserted leaves, which range from full octavo-sized leaves to small portions of leaves, are illustrated on both rectos and versos, bringing the total page count to 105, containing over 1000 drawings. Four pages contain approximately 60 highly finished drawings in ink; the remaining drawings are all in pencil. The drawings or groups of related drawings bear neat captions in ink, and a few (facing pages 146, 147, 234 and 311) are accompanied by longer Latin botanical descriptions in Cuvier's hand. One sheet (inserted opposite p. 24) contains two full-page pencil drawings of the flowering portion of the arum plant, and is folded to fit within the volume. The remaining drawings are all small in size. Cuvier's marginal notes or corrections in ink or pencil are found on pages 29, 30, 182, 184, 333, 355, 427 and 441.

Cuvier was a gifted draughtsman; as a lecturer he was known for the facility and speed with which he could produce lifelike blackboard sketches, "as clear as they were accurate" (DSB), to illustrate his expositions. His considerable contributions to comparative anatomy and zoology paralleled Jussieu's achievements in the field of botany, in that they were largely concerned wtih classification and taxonomy. Cuvier's interest in plants was longstanding: "as early as his second year at the university [the Hohen Karlsschule, close to Stuttgart], Cuvier had discovered near Stuttgart some plants that were new to the region" (DSB). Jussieu's work would naturally have interested him greatly, and the exchange of the present copy for Jussieu's own, possibly annotated, copy of the work, recorded in this copy by S. F. Lacroix, his colleague at the *Institut de France* and *College de France*, is quite plausible.

Grolier/Horblit 68b; Hunt 703; Stafleu & Cowan TL2 589; Wellcome III, p. 374; Norman 1194.

Estimate: $7,000-9,000

○562

KANT, Immanuel (1724-1804). *Critik der reinen Vernunft.* Riga: Johann Friedrich Hartknoch, 1781.

8° (200 x 123 mm). Contemporary mottled sheep, spine gilt, gilt-lettered lettering piecce on spine (light wear to spine, with some old repairs to joints).

FIRST EDITION. "Kant's great achievement was to conclude finally the lines on which philosophical speculation had proceeded in the eighteenth century, and to open up a new and more comprehensive system of dealing with the problems of philosophy ... The influence of Kant is paramount in the critical method of modern philosophy. No other thinker has been able to hold with such firmness the balance between speculative and empirical ideas ... His methods ... dominated western philosophical thought throughout the nineteenth century, as they do today" (PMM 226). Norman 1197.

Estimate: $4,000-6,000

○563

KANT, Immanuel (1724-1804). *Critik der practischen Vernunft.* Riga: Johann Friedrich Hartknoch, 1788.

8° (201 x 117 mm). Late 19th-century half morocco (spine defective). FIRST EDITION of the *Critique of Practical Reason* in which Kant formulates the "categorical imperative" the foundation of modern ethics. See PMM 226 (note); Waller 19813; Warda 112; Norman 1198.

Estimate: $800-1,200

○564

KANT, Immanuel (1724-1804). *Critik der Urtheilskraft.* Berlin and Libau: Lagarde and Friederich, 1790.

8° (196 x 123 mm). Contemporary buff boards, spine ink lettered (light wear to spine). *Provenance:* Emil Arnoldt (signature on front free endpaper).

FIRST EDITION of Kant's *Critique of judgement,* which finishes his "critical duty" ("Hiemit endige ich also mein ganzes critisches Geschäft"—Introduction p. x). The first part is devoted to the *Critique of the astetical judgment,* the second part to the *Critique of the teleological judgment* in which Kant denies the posibility that organisms might be explained mechanically, which he had entertained earlier. "All the phenomena of inanimated nature can be explained in terms of the motion of matter in space and enduring through time, while for living things such efficient causes are not enough—they must be explained in terms of an end and thus require final causes in addition to effcient ones. In more modern terms, biology, for Kant cannot in the final analysis be explained solely in terms of physics and chemistry" (DSB). Ardickes 71; Warda 125; Norman 1199.

Estimate: $1,000-1,500

○565

KANT, Immanuel (1724-1804). *Zum ewigen Frieden.* Königsberg: Friedrich Nicolovius, 1795. 8° (184 x 113 mm). Contemporary blue wrappers (minor wear to spine). FIRST EDITION. Kant's proposals outlined in his *Perpetual peace* were adopted into international law in the 19th and 20th century. Norman 1200 — KANT. *Anthropologie in pragmatischer Hinsicht abgefasst.* Königsberg: Friedrich Nicolovius, 1798. 8° (202 x 118 mm). Contemporary half sheep and speckled boards, spine gilt, blue lettering piece. FIRST EDITION in which Kant attempted a classification of mental diseases. Garrison-Morton 4969; Norman 1201 — KANT. *Von der Macht des Gemüths durch den blossen Vorsatz seiner krankhaften Gefühle Meister zu seyn.* Jena: Academische Buchhandlung, 1798. 8° (190 x 110 mm). 19th-century marbled boards. First Edition in book form. Norman 1202.

(3)

Estimate: $1,000-1,500

566

KEPLER, Johannes (1571-1630). *Astronomia nova* ΑΙΤΙΟΛΟΓΗΤΟΣ, *seu physica coelestis, tradita commentariis de motibus stellae martis, ex observationibus G. V. Tychonis Brahe*. [Heidelberg: E. Vögelin,] 1609.

2° (343 x 227 mm). Dedication to Emperor Rudolph II, folding letterpress synoptic table, approximately 300 woodcut text diagrams (many repeated), woodcut initials, head- and tail-pieces. First 3 and final blank leaves removed. Without the engraved portrait inserted in a few copies. (Washed and pressed, some discoloration, insignificant short marginal tears to (**)1, O1 and O2.) Green hard-grain morocco, overlapping board fore-edges, gilt edges, by René Aussourd; matching morocco-edged slipcase.

Provenance: Douai, Bibliothèque Publique (inkstamps including duplicate stamps on title).

FIRST EDITION OF KEPLER'S MOST IMPORTANT WORK, A CORNERSTONE OF MODERN ASTRONOMY, containing the first enunciation of the first two laws of planetary motion: the law of elliptical orbits, and the law of equal area (the radius vector drawn from the sun to a planet describes equal areas in equal times). In 1599, expelled from Graz along with other Protestant teachers, Kepler had spent three months with Brahe at his Benatky Castle observatory in Prague. There, "by Divine Providence," as Kepler later viewed it, Tycho assigned him to come up with a theory of Mars. Kepler had expected this task to be the work of a few weeks; instead he pursued it, with some interruptions, for the next five years. The mass of systematic and accurate observational data collected by Brahe, who died in 1601, forced Kepler, through its own "inexorable logic," to elaborate an entirely new astronomical system. He presented his revolutionary conclusions in the aptly titled *Astronomia nova*. "Copernicus had shown the sun to be the centre of the universe round which the earth and planets revolve, but his description of their movements was still strongly influenced by ancient conceptions of order and harmony. It was Kepler's aim to determine the true movements of the planets and the mathematical and physical laws controlling them" (PMM). As Kepler phrased it, his goal was "to replace a theology or metaphysics of the heavens with a philosophy or physics of the heavens," and to show that "the celestial machine is like a clockwork" (Caspar). "Copernicus had referred planetary motions to the center of the earth's orbit, but Kepler referred them to the sun itself, therefore paving the way for a real center of force and making possible the Newtonian celestial mechanics" (Dibner).

The work was finished in 1605, but publication was delayed, partly due to a lack of imperial financial support, but also because of contestation by Tycho Brahe's heirs, who had been short-changed by the Emperor of a promised sum for Tycho's manuscripts, and who thus had a vested interest in Brahe's data. One of them, Tycho's son-in-law Franz Gansneb Tengnagel, "although unqualified, promised his own publication and, after failing to produce, threatened to suppress Kepler's commentary... A compromise was reached: Tengnagel was allowed a preface to warn the reader not to 'become confused by the liberties that Kepler takes in deviating from Brahe in some of his expositions, particularly those of a physical nature'" (DSB). (Tengnagel's note to the reader appears on fol. (***)1v.) In 1607 Kepler had had the wood blocks cut in Prague, and in 1608 he sent the text to be printed by E. Vögelin in Heidelberg. The absence of an imprint was due to the fact that the edition was not intended for commerce: the Emperor held the rights to its distribution, since Kepler had written it in his post of court astronomer and it had been printed at imperial expense. Kepler however thought otherwise, his salary being long in arrears, and he sold his copies to the publisher. Although the size of the press run is not recorded, Kepler later stated that only "a few copies" had been printed (Caspar p. 55).

Caspar 31; Dibner *Heralds of Science* 9; Grolier/Horblit 57; Houzeau & Lancaster 11830; PMM 112; Norman 1206.

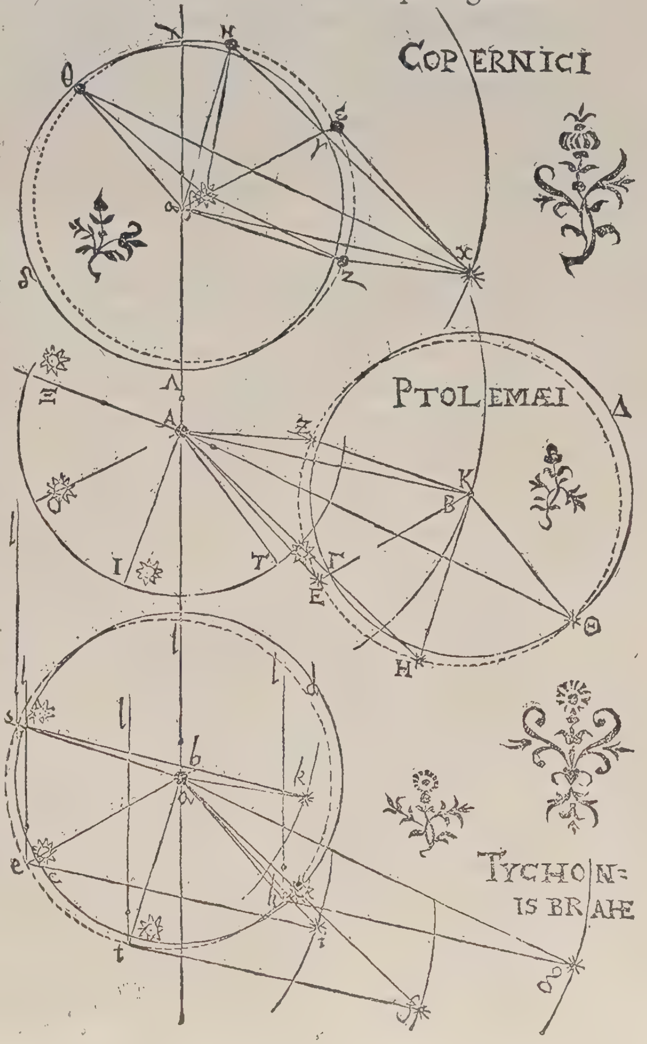
Estimate: $20,000-30,000

Cap. XXIV.

Jam poſtquam ſemel hujus rei periculum fecimus, audacia ſubvecti porro liberiores eſſe in hoc campo incipiemus. Nam conquiram tria vel quotcunque loca viſa Martis, Planeta ſemper eodem eccentrici loco verſante: & ex iis lege triangulorum inquiram totidem punctorum epicycli vel orbis annui diſtantias à puncto æqualitatis motus. Ac cum ex tribus punctis circulus deſcribatur, ex trinis igitur hujusmodi obſervationibus ſitum circuli, ejusque augium, quod prius ex præſuppoſito uſurpaveram, & eccentricitatem à puncto æqualitatis inquiram. Quod ſi quarta obſervatio accedet, ea erit loco probationis.

Primum tempus eſto anno MDXCX D. V Martii veſperi H. VII M. X eo quod tunc ♂ latitudine pene caruit, ne quis impertinenti ſuſpicione ob hujus implicationem in percipienda demonſtratione impediatur. Reſpondent momenta hæc, quibus ♂ ad idem fixarum punctum redit: A. MDXCII D. XXI Jan. H. VI M. XLI: A. MDXCIII D. VIII Dec. H. VI. M. XII: A. MDXCV D. XXVI Octob. H. V M. XLIV. Eſtq; longitudo Martis primo tempore ex Tychonis reſtitutione $1^{s}.4^{\circ}.38'.50''$: ſequentibus temporib. toties per $1'.36''$ auctior. Hic enim eſt motus præceſſionis congruens tempori periodico unius reſtitutionis Martis Cumq; Tycho apogæum ponat in $23\frac{1}{2}^{\circ}$ ♌, æquatio ejus erit $11^{\circ}.14'.55''$: propterea lõgitudo coæquata anno MDXC $1^{s}.15^{\circ}.53'.45''$.

Eodem vero tempore & commutatio ſeu differentia medii motus Solis a medio Martis colligitur $10^{s}.18^{\circ}.19'.56''$: coequata ſeu differentia inter medium Solis & Martis coæquatum eccentricum $10^{s}.7^{\circ}.5'.1''$.



Primum hæc in forma Copernicana ut ſimpliciori ad ſenſum proponemus.

Sit α punctum æqualitatis circuitus terræ, qui putetur eſſe circulus δγ ex α deſcriptus: & ſit Sol in partes β, ut αβ linea apogæi

567

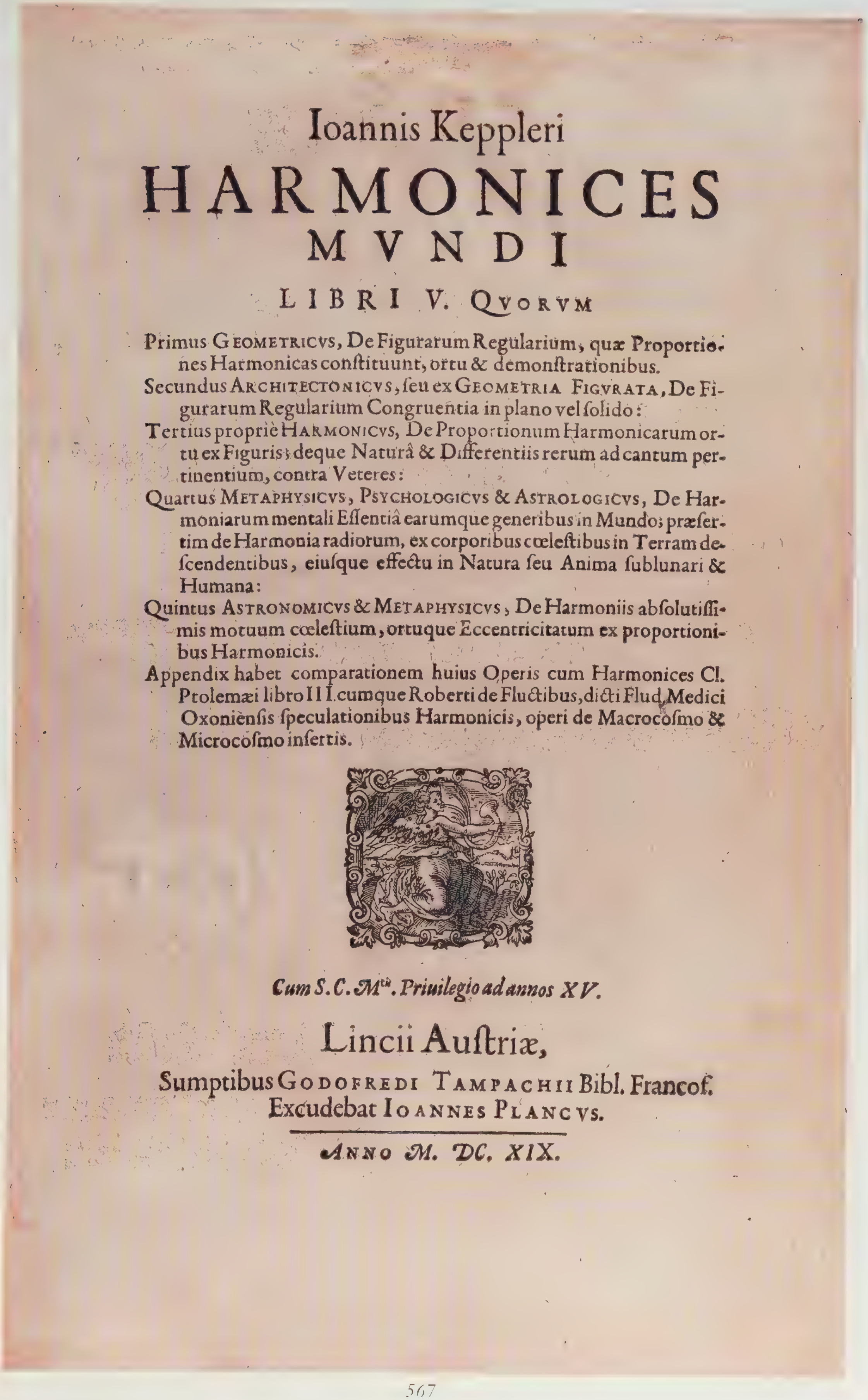
KEPLER, Johannes (1571-1630). *Harmonices mundi libri V.* Linz: Johannes Plank for Gottfried Tampach, 1619.

2° (297 x 190 mm). General title, first state of the title with printer's woodcut device and without the text beginning "Accessit nunc...," 5 section titles, with the dedication to King James of England (∗2r-∗4r), later suppressed by Kepler and absent from a few copies, errata leaf at end, 5 engraved plates, numerous woodcut diagrams and illustrations in text after W. Schickard, woodcut musical notation in Book III. (Occasional browning or foxing, short marginal tears to 4 leaves, just catching headlines of C1 and F2.) 17th-century English rough calf (rebacked preserving morocco lettering piece, board edges and corners restored); brown morocco folding case (a few small scrapes). *Provenance*: 17th- or 18th-century English note on "wholl numbers" dated(?) 1735, with a calculation, on upper cover; early price note on front pastedown.

FIRST EDITION of Kepler's major cosmological treatise, an exposition of his theory of the harmony of the universe, containing the third law of planetary motion. Kepler had drafted a plan for the work already in 1599, but he was unable to return to it until 1616. The next two years saw the death of two of his children, and work on his *Harmonice* became a solace. All of his previous work and the insights into the working of the cosmos that he had gained in the intervening decades served as material for this, his life's work. "Certainly for Kepler this book was his mind's favorite child. Those were the thoughts to which he clung during the trials of his life and which brought light to the darkness that surrounded him... his *Harmonice* appears as a great cosmic vision, woven out of science, poetry, philosophy, theology, mysticism..." (Caspar, *Kepler*, 1959, p. 290, quoted in DSB). Kepler attempted to discern God's archetypal laws of the universe in four areas: geometry, music, astrology and astronomy. He conceived of a universal harmony as the embodiment of certain simple geometrical proportions relating these different aspects of the cosmos. In book I he studied the properties of polygons and polyhedrons, and introduced the great and small stellated dodecahedrons (rediscovered in 1810 by Louis Poinsot). In Book V, "on the harmony of celestial motion," Kepler refined the theory expounded in his *Mysterium cosmographicum* (1596), that the mean distances of the planets from the sun are in proportions related to spheres inscribing and circumscribing the five regular solids. "Now, imbued with a new respect for data, he could no longer dismiss [the earlier theory's] 5 percent error... In the astronomical book V... he came to grips with this central problem: By what secondary principles did God adjust the original archetypal model based on the regular solids?... In the course of this investigation, Kepler hit upon the relation now called his third or harmonic law" (DSB). In this he related the magnitude of the planetary orbits to their periods of revolution around the sun, and established that the square of a planet's periodic time is proportional to the cube of its mean distance from the sun.

Caspar 58; Dibner *Heralds of Science* 6; Grolier/Horblit 58; Houzeau and Lancaster 11832; Zinner 4737; Norman 1207.

Estimate: $7,000-10,000



Ioannis Keppleri

HARMONICES MVNDI

LIBRI V. QVORVM

Primus GEOMETRICVS, De Figurarum Regularium, quæ Proportiones Harmonicas conſtituunt, ortu & demonſtrationibus.

Secundus ARCHITECTONICVS, ſeu ex GEOMETRIA FIGVRATA, De Figurarum Regularium Congruentia in plano vel ſolido:

Tertius propriè HARMONICVS, De Proportionum Harmonicarum ortu ex Figuris; deque Naturâ & Differentiis rerum ad cantum pertinentium, contra Veteres:

Quartus METAPHYSICVS, PSYCHOLOGICVS & ASTROLOGICVS, De Harmoniarum mentali Eſſentiâ earumque generibus in Mundo; præſertim de Harmonia radiorum, ex corporibus cœleſtibus in Terram deſcendentibus, eiuſque effectu in Natura ſeu Anima ſublunari & Humana:

Quintus ASTRONOMICVS & METAPHYSICVS, De Harmoniis abſolutiſſimis motuum cœleſtium, ortuque Eccentricitatum ex proportionibus Harmonicis.

Appendix habet comparationem huius Operis cum Harmonices Cl. Ptolemæi libro III. cumque Roberti de Fluctibus, dicti Flud, Medici Oxonienſis ſpeculationibus Harmonicis, operi de Macrocoſmo & Microcoſmo inſertis.

Cum S. C. M^{tis}. Priuilegio ad annos XV.

Lincii Auſtriæ,
Sumptibus GODOFREDI TAMPACHII Bibl. Francof.
Excudebat IOANNES PLANCVS.

ANNO M. DC. XIX.

ɔ568

KEPLER, Johannes (1571-1630). *Tabulae Rudolphinae, quibus astronomicae scientiae, temporum longinquitate collapsae restauratio continentur.* Ulm: Jonas Saur, 1627.

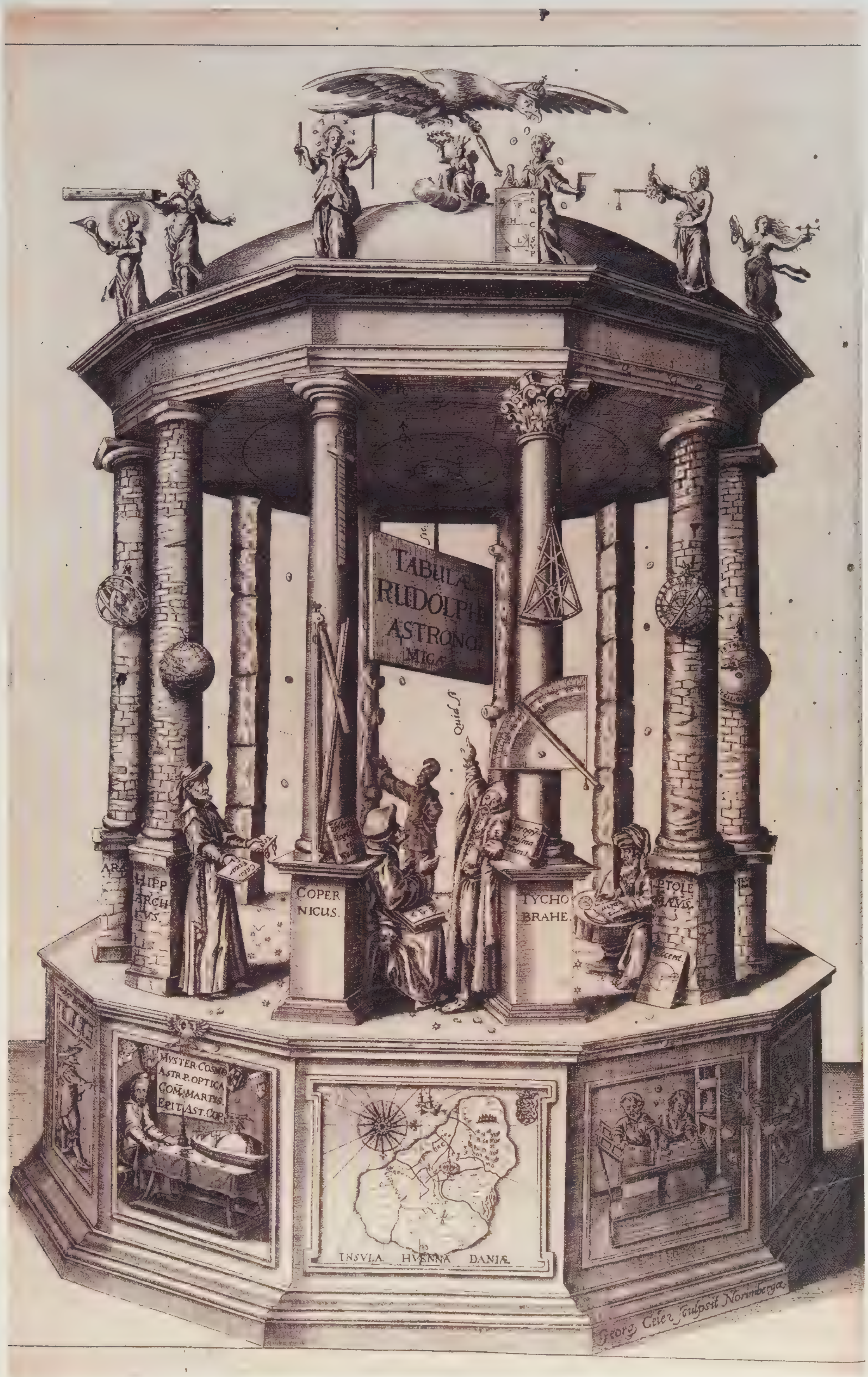
2º (338 x 222 mm). 4 parts in one (text and tables in 3 parts), the tables separately paginated and with section titles to parts 1 and 2, text in italic and roman, double column, printed shoulder notes. Engraved allegorical frontispiece of the Temple of Urania with astronomers, by George Celer after Kepler. First quire [):(^{4}, containing two dedicatory letters to Ferdinand II, from Brahe's heirs and from Kepler] in Caspar's second state; second quire [):( ):(^{4}] in Caspar's third state (printed here on a different, slightly shorter paper). A few woodcut text diagrams, including full page of diagrams on k3v, woodcut initials, large woodcut device on part 2 section title. This copy includes the 4-leaf "Sportula genethliacis missa" (q^4) issued in 1629; it does not include the Appendix by Jacob Bartsch, added soon after Kepler's death in 1627, or the world map, dated 1630 but issued after 1658, that was added to some copies. (Diagram captions on k3v cropped, small faint marginal dampstain to frontispiece, small inkstain and trace of removed inkstamp on title, quire q^4 ["Sportula" leaves] slightly wrinkled and foxed.) 17th-century English speckled calf (rebacked preserving original backstrip, lower outer joint split, spine and extremities rubbed). *Provenance*: Earls of Bute, Luton Library bookplate.

FIRST EDITION. On his deathbed in 1601, Tycho Brahe urged Kepler to complete his long-projected astronomical tables, to be based on Tycho's mass of astronomical observations and named after their patron Rudolph II. As Brahe's successor in the post of imperial mathematician, Kepler's principal task was the preparation of these improved astronomical tables. He worked on them for years, with frequent interruptions. "In his own eyes Kepler was a speculative physicist and cosmologist; to his imperial employers he was a mathematician charged with completing Tycho's planetary tables. He spent most of his working years with this task hanging as a burden as well as a challenge; ultimately it provided the chief vehicle for the recognition of his astronomical accomplishments" (DSB). When the work was finally ready for the press in 1624, there were further delays, not least the arrival of the Counter-Reformation in Linz, where Kepler was living and had planned to have the work printed. The edition was finally printed in Ulm, under Kepler's close supervision, in an edition of 1000 copies. "In excusing the long delay in publication... [Kepler] mentioned in the preface [p. 6] not only the difficulties of obtaining his salary and of the wartime conditions but also 'the novelty of my discoveries and the unexpected transfer of the whole of astronomy from fictitious circles to natural causes, which were most profound to investigate, difficult to explain, and diffiult to calculate, since mine was the first attempt'" (DSB).

The greatly improved accuracy of Kepler's tables over previous planetary tables was due not only to his adherence to the Copernican system and his discovery of the laws of planetary motion, but also to the "happy calamity," as he put it, of his initiation into logarithms, through the intermediary of a small book by Benjamin Ursinus (the *Cursus mathematici practici*, Cologne 1618) which reproduced Napier's tables of logarithms. Kepler created his own logarithmic tables (published in 1624), and used them for the complex calculations required to determine planetary orbits. The superiority of his tables "constituted a strong endorsement of the Copernican system, and insured the tables' dominance in the field of astronomy throughout he seventeenth century" (Norman).

Caspar 79; Houzeau and Lancaster 12754; Zinner 5063; Norman 1208.

Estimate: $8,000-12,000


TABULÆ RUDOLPHI ASTRONOMICÆ
Quid si
COPERNICUS.
TYCHO BRAHE.
HIPPARCHUS.
PTOLEMÆUS.
ARA
MYSTER. COSMO
ASTR. P. OPTICA
COM. MARTIS.
EPIT. AST. COP.
INSVLA HVENNA DANIÆ
Georg Celer sculpsit Norimbergæ.

569

KERCKRING, Thomas Theodor (1640-1693). *Spicilegium anatomicum, continens observationum anatomicarum rariorum centuriam unam, nec non osteogeniam foetuum.* Amsterdam: Andreas Fris, 1670. 4° (227 x 188 mm). 3 parts in one, continuously paginated, general engraved title, 3 divisional titles with engraved vignettes, title and vignetttes by Abraham Bloteling, 39 numbered engravings including 9 folding plates and 30 illustrations in text of which 11 full-page. (Some marginal discoloration, occasional marginal dampstaining and softening, the folding plates with short marginal tears at gutters, plates XXX and XXXIX with a 2-inch and 6-inch repaired tear respectively.) Later vellum over pasteboard (rebacked, soiled). *Provenance*: Gabriel Gustav Velentin (1810-1833), physiologist, professor of anatomy at the University of Bern, author of numerous textbooks and manuals of physiology (oval stamp on title). Garrison-Morton 383; *Heirs of Hippocrates* 632; NLM/Krivatsy 6346; Waller 5270; Wellcome III, p. 386; Norman 1209.

[*Bound with*:]

KERCKRING, Thomas Theodor. *Anthropogeniae ichnographi sive conformatio foetus ab ovu usque ad officationis principia, in supplementum osteogeniae foetum.* Amsterdam: A. Fris, 1671. 4°, 12 leaves, the last blank. Engraved title vignette by Bloteling, 1 full-page engraving, woodcut initials. NLM/Krivatsy 6345; Waller 5268; Wellcome III, p. 387; Norman 1210.

FIRST EDITIONS of Kerckring's investigations into fetal development. Kerckring's most important and far-reaching contribution, presented in part two of the *Spicilegium anatomicum*, was his discovery that the fetal skeleton develops through the transformation of membrane and cartilage into bone. He "was the first to describe 'Kerckring's ossicle,' an occasional center of ossification in the occipital bone" (Norman); his name is also preserved in the *valvulae conniventes*, or valves of Kerckring, a part of the small intestine, previously described by Falloppio, and studied in part I of the *Spicilegium*. The second work is a continuation of his study of fetal osteology; in it Kerckring sets forth his mistaken theory that the younger fetal skeleton is a mere miniature of the older fetus.

Estimate: $1,800-2,400

570

KILPATRICK, James [afterwards KIRKPATRICK] (d.1770). *An essay on inoculation, occasioned by the Small-Pox being brought into South-Carolina in the year 1738...with an Appendix, containing a faithful account of its event there; where Eight only died out of above 800 inoculated.* London: J. Huggonson, 1743.

8° (183 x 115 mm). Collation: Π^1, A–Γ4 H2 (Π1r title, A2r-A4v preface, B1r-D2r Essay on Inoculation, D3r-H2v Appendix). 31 leaves. Modern calf-backed marbled paper boards.

FIRST EDITION, containing a first-hand account of the successful use of inoculation in the 1738 epidemic in the South Carolina colony. Kilpatrick (later Kirkpatrick), was a strong advocate of inoculation, on which he published several pamphlets; he practiced during the 1738 South Carolina epidemic, and reported that of the more than 800 he treated, only 8 died. He "returned to England where his prominence and experience helped to revive the practice ... He devised the 'arm to arm' method of attenuation, in which the smallpox virus was passed between several subjects." At the beginning of the Appendix, Kirkpatrick refers to his Essay as having been "first printed in South Carolina," possibly referring to a newspaper publication as no such separate imprint can now be traced. The Appendix gives valuable anecdotal accounts of the treatment of various South Carolinians (who are named), including African-American slaves. Garrison & Morton 5416; Not in Sabin; Simmons, *British Imprints Relating to America 1621-1760*, 1743#20 (locating the BL and three US copies, giving erroneous Sabin citation). VERY RARE: no copy has appeared at auction (under either form of the author's name) since at least 1960. Norman 1223

Estimate: $1,500-2,000

571

KIRCHER, Athanasius (1602-1680). *Magnes sive de arte magnetica opus tripartitum.* Rome: L. Grignani for Hermann Scheus, 1641.

4° (218 x 150 mm). 2 additional titles and 32 engraved plates including one folding plate and one volvelle (some plates trimmed close, volvelle loose). (Some light marginal wear to lower right corner, affecting a few letters on some pages). Contemporary limp vellum, spine ink lettered.

Provenance: Jesuit College, Heidelberg (ink inscription on title page dated 1733).

FIRST EDITION of Kircher's second and largest work on magnestism. "The work is divided into three parts: the first on the magnet itself; the second on its application (encompassing magnetic statics, magnetic geometry, magnetic astronomy and magnetic natural magic); and the third on such topics as the magnetism of the earth and other heavenly bodies, the use of the thermometer, natural and artificial weather, magnetism of medicines, poisons and antidotes, the attractive force of the imagination, and the magnetism of music and of love. The second edition of this work (Cologne, 1643) had great influence on Otto von Guericke" (Norman). Merrill 4;NLM/Krivatsy 6398; Wellcome III, 394; Wheeler 116; Norman 1215.

Estimate: $3,000-4,000

572

KIRCHER, Athanasius (1602-1680). *Ars Magna lucis et umbrae in decem libros digesta.* Rome: L. Grignan for H. Scheus, 1646.

2 volumes in one, 2° (301 x 199 mm). Engraved title by Pierre Miotte of Burgundy and 38 engraved plates (including 2 engraved tables and one folding plate), (tiny hole in Qqqq2, affecting a few letters and marginal tear in Ddddd2.) Contemporary calf gilt, gilt coat-of-arms of Jacques-Auguste de Thou *fils* and his first wife, Marie Picardet, on both covers, gilt monogram "IAM" repeated five times on spine. (Upper joint slightly cracked).

Provenance: Gilt coat-of-arms of Jacques-Auguste de Thou *fils* (d. 1677), son of Jacques-Auguste deThou, the celebrated 16th-century French bibliophile and his first wife Marie Picardet on both covers.

FIRST EDITION. "Kircher compared the action of light to that of a magnet, examined the phenomena of bioluminescence and mineral phosphorescence..." NLM/Krivatsy 6396; Wellcome III, p. 394; Norman 1216.

Estimate: $2,000-3,000

573

KIRCHER, Athanasius (1602-1680). *Scrutinium physico-medicum contagiosae luis, quae pestis dicitur.* Rome: Mascardi, 1658.

4° (242 x 176 mm). Contemporary limp vellum, spine ink lettered (covers slightly bowing, small library mark at foot of spine).

FIRST EDITION. "Kircher was probably the first to employ the microscope in investigating the cause of disease... he was the first to state explicitly the theory of contagion by animalculae as the cause of infectious diseases" (Garrison-Morton 5118). *Heirs of Hippocrates* 308; NLM/Krivatsy 6405; Osler 3120 (1659 edition); Waller 5295; Wellcome III, p.395; Norman 1217.

Estimate: $1,200-1,800

574

)574

KIRCHER, Athanasius (1602-1680). *Mundus subterraneus in XII libros digestus.* Amsterdam: J. Jansson and E. Weyerstrat, 1665.

2 volumes in one, 2° (391 x 235 mm). 2 engraved titles, engraved portrait of the author and Pope Alexander VII, 21 engraved plates (including 8 folding, 4 double-page, and 2 small plates), 7 inserted double-page or folding letterpress tables, and numerous engraved and woodcut illustrations in text (including 2 volvelles, not assembled). Contemporary blindstamped vellum, spine ink-lettered (rebacked, preserving original spine, remnants of cloth ties).

FIRST EDITION of Kircher's influential encyclopaedic survey of the subterranean or "hidden" world. Based on his experiences of the eruption of Vesuvius in 1637 and the two weeks of earthquakes that shook Calabria in 1638, Kircher's *Mundus subterraneus* marks the first serious effort to describe the physical makeup of the earth, proposing theories (sometimes fantastic) in the areas of physics, geography, geography, geology and chemistry. He suggests the existence of a vast network of underground spings and reservoirs, as well as the theory that subterranean temperatures increase directly in proportion to depth. The world map (Shirley 436) was one of the earliest to show ocean currents with any degree of accuracy. Caillet 5783; Ferguson I, p. 467; Graesse IV:21; Nissen *ZBI* 2196; Sabin 37967; Wellcome III, p. 395; Norman 1218.

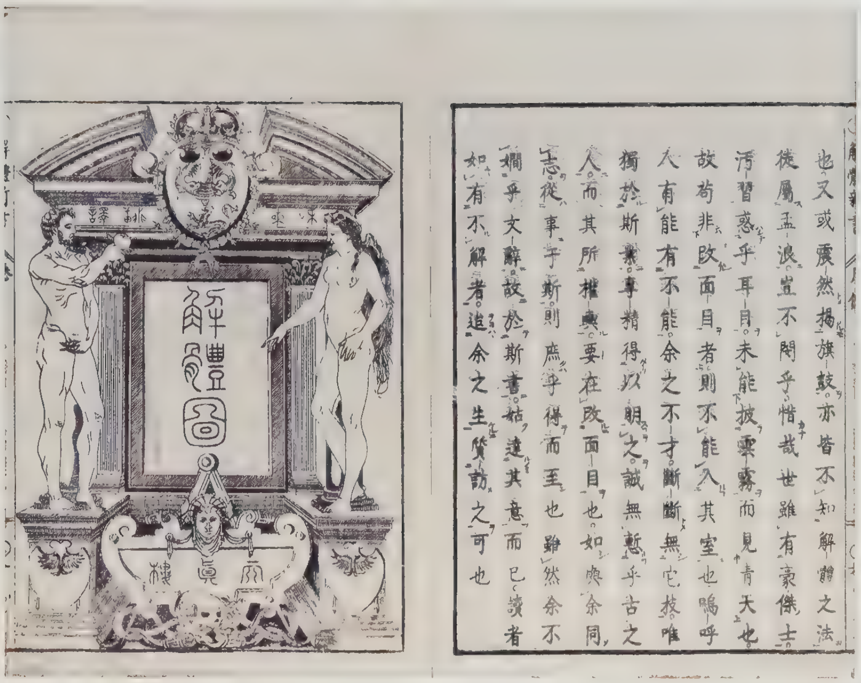
Estimate: $4,000-6,000

)575

KÖLREUTER, Joseph Gottlieb (1733-1806). *Vorlaäufige Nachricht von einigen das Geschlecht der Pflanzen betreffenden Versuchen und Beobachtungen.* Leipzig: Gleditsch, 1761-66.

Four parts in one volume, 8° (190 x 110 mm). Woodcut devices on title, woodcut head- and tail-pieces, folding letterpress table. Late 18th-century boards. *Provenance*: J.H.G. Reuss (ownership inscription, dated 1804, on front free endpaper; his notations on endpapers; and bookplate); Hans Winckler, 1894 (signature on front free endpaper).

EXTREMELY RARE FIRST EDITION KÖLREUTER'S ACCOUNT OF THE FIRST PLANT HYBRID PRODUCED THROUGH SCIENTIFIC EXPERIMENTATION. Although Camerer had demonstrated the existence of sexuality in plants (see lot 349), "it was Kölreuter who first gave this knowledge a scientific application. Recognizing that a demonstration of hybridization in plants would provide strong evidence for plant, Kölreuter set out to produce plant hybrids under strictly controlled



也又或震然揭旗鼓亦皆不知解體之法
徒屬孟浪豈不悶乎惜哉世雖有豪傑士
汚習惑乎耳目未能披雲霧而見青天也
故苟非改面目者則不能入其室也嗚呼
人有能有不能余之不才斷斷無它技唯
獨於斯業專精得以明之誠無慙乎古之
人而其所權輿要在改面目也如與余同
志從事于斯則庶乎得而至也雖然余不
嫻乎文辭故於斯書姑達其意而已讀者
如有不解者追余之生質訪之可也

576

conditions, using castration and artifical pollination ... he also made precise and original observations of the fertilization and pollination processes, and some astute conjectures as to why plant hybrids are so rarely found in nature" (Norman). Dibner *Heralds of Science* 28; Pritzel 4791; Norman 1233.

Estimate: $2,000-3,000

o576

KULMUS, Johann Adam. *Kaitai shinsho* [Anatomical Tables]. Translated into Japanese and edited by Sugita Genpaku (1733-1818), Maeno Ryotaku (1723-1803), Nakagawa Jun'an (1739-1786), Ishikawa Genjo (1744-1816) and Katsuragawa Hoshu (1751-1809). Yedo [Tokyo]: 1774.

5 volumes, large 8° (256 x 176 mm). One volume contains a woodcut Italianate architectural title-border and 40 woodcut anatomical illustrations. Original paper wrappers, stabbed and sewn in the Japanese style, front covers with printed labels; cloth folding case with ivory hasps. *Provenance*: plates annoted in Japanese in red ink.

FIRST JAPANESE EDITION. THE INTRODUCTION OF EUROPEAN ANATOMICAL KNOWLEDGE TO JAPAN, AND A LANDMARK IN THE HISTORY OF JAPANESE MEDICINE. "Prior to the introduction of Western medicine in Japan the Japanese had derived their medical theories from traditional Chinese medical philosophy, based upon a non-empirical, holistic and quasi-religious view of the body in which an exact knowedge of anatomy was meaningless" (Norman). Although this view was challenged in the 17th century when Western anatomical theory was first introduced with the arrival of the Dutch East India Company, Japanese medicine remained fundamentally unaltered until the publication of *Kaitai shinsho*. The translation was apparently made from Gerard Dieten's 1733 Dutch version of the original German text by Kulmus, entitled *Anatomische Tabellen* (1731). The Western-style title-page contained in the work was copied from Valverde's *Vivae imagines partium corporis* (1566) and some of the other anatomical woodcut illustrations are copied directly from Bidloo's *Ontleding des menschelycken lichaams* (1690). "According to Sugita, one of the book's translators and editors, the inspiration for *Katai shinsho* came in 1771 when he and two other students of Dutch medicine bribed an executioner to let them see the dismembered body of a criminal. The three compared what they saw to the anatomical illustrations in Kulmus's book, and, struck by the accuracy of teh European representations, determined to prepare a Japanese edition of Kulmus's anatomy" (Norman). The *Kaitai shinsho* was directly responsible for Japanese acceptance of the European view of the body and virtually revolutionized their medical conception for all its future development. VERY RARE. Boxer, *Jan Campagnie in Japan*, pp. 46-47; Waller 5456; Norman 1196.

(5)

Estimate: $20,000-30,000

ɔ577

KUNCKEL, Johann (1630 [1638?]-1702 [1703?]). *Ars vitraria experimentalis, oder vollkommene Glasmacher-Kunst, Lehrende, als in einem aus unbetrüglicher Erfahrung herfiessendem commentario, über die von dergleichen Arbeit beschriebenen sieben Bücher P. Anthonii Neri, von Florentz und denen darüber gethanen gelehrten Anmerckungen Christophori Merretti...* Frankfurt and Leipzig: Johann Bielcke and Christoph Günthern, for the author, 1679.

2 parts in one volume, 4° (198 x 157 mm). Engraved portrait, engraved additional title and 20 engraved plates. (Light browning throughout, P1 torn.) Contemporary vellum.

FIRST EDITION of one of the best accounts of glass-making. "A classic book on glass-making, describing the discovery of ruby glass and the invention of a glass-blowing table with double bellows. A translation of Neri's work and Merrett's notes to it is included. Kunckel is a more important figure in the history of chemistry than seems generally realised" (Duveen). Another issue of the 1679 edition exists with the imprint: "Amsterdam und Dantzig: Auff Kosten des Autoris, bey Heinrich Betkio und Consorten. Gedruckt bey Christoph Günthern." Duveen, p. 328 (for the Amsterdam and Danzig 1679 edition); Partington II, pp. 368-371; Wellcome III, p. 419; Norman 1244.

Estimate: $2,000-3,000

ɔ578

LA CONDAMINE, Charles Marie de (1701-1774). *Relation abrégée d'un voyage fait dans l'interieure de l'Amérique méridionale.* Paris: Veuve Pissot, 1745.

8° (196 x 119 mm). Folding engraved map. Contemporary French mottled calf (rebacked). *Provenance*: James Jardine (signature on front flyleaf); Nat. Atcheson (bookplate); Ruben J. Dussaut (bookplate).

FIRST EDITION OF THE FIRST SCIENTIFIC EXPLORATION OF THE AMAZON. The *Relation abrégée d'un Voyage* contains la Condamine's account of his return from Peru to the Atlantic coast of South America, via the Amazon river. La Condamine was one of three scientists sent to Peru by the Académie des Sciences in 1735 to measure degrees of meridian at the Equator. Palau 58996; Norman 1247.

[*Bound with*:]

[LA CONDAMINE, Charles Marie de]. *Lettre a Madame *** sur l'emeute populaire excitée en la ville de Cuenca au Perou, le 29 d'août 1739 contre les académiciens des sciences. -Pieces justificatives, pour servir de preuve à la pluspart des faits allégués dans la lettre précédente.* [Paris: n.p.], 1746-45. 8°. Engraved folding plate. FIRST EDITION of this work "largely concerned with the judicial proceedings following the death of the surgeon Jean Seniergues, which occurred during a riot staged by the population of Cuenca in Peru in 1739 against the French geodesists sent by the Académie to measure degrees of meridian at the equator" (Norman). Palau 58997; Wellcome III, p. 426; Norman 1248.

Estimate: $800-1,200

ɔ579

LA CONDAMINE, Charles Marie de (1701-1774). *Mesure des trois premiers degrés du méridien dans l'hémisphere austral.* Paris: Imprimerie Royale, 1751.

4° (247 x 187 mm). Engraved title-page vignette, 3 folding engraved plates, engraved head-pieces. WITH AN ORIGINAL PENCIL DRAWING FOR ONE OF THE VIGNETTES (the one appearing on p. 105), signed by the artist P. Clavareau ("Clav"). (Some minor marginal foxing.) Contemporary French mottled calf gilt. *Provenance*: Moscow institution (stamp on title and a few margins and engraved bookplate). FIRST EDITION. Accompanied by fellow Académiciens Godin and Bouguer, and the naturalist Joseph de Jussieu, La Condamine embarked for Peru in 1735 with the purpose of measuring several degrees of meridian at the equator to settle the controversy between the Newtonians and the Cartesians over whether the earth was flattened or elongated at the poles. The geodetic measurements were eventually completed after much delay in 1743 and proved the validity of Newton's hypothesis. Borba de Moraes I, 381; Sabin 38483; Norman 1249.

[*Bound with*:]

LA CONDAMINE, Charles Marie de. *Journal du voyage fait par ordre du roi, à l'équateur, servant d'introduction historique à la mesure des trois premiers degrés du méridien*. Paris: Imprimerie Royal, 1751. 4°. Large folding engraved map of Quito by d'Anville, 5 engraved plates showing views and plans (all but one folding), letterpress folding sheet. FIRST EDITION, without the Supplement (published 1754). Sabin 38479; Norman 1250.

Estimate: $800-1,200

580

LAGRANGE, Joseph Louis (1736-1813). *Méchanique analitique*. Paris: chez la Veuve Desaint, 1788.

4° (261 x 200 mm). Contemporary pink mottled boards, lettering piece on spine (spine faded, minor wear to extremities). *Provenance*: Some contemporary calligraphic marginalia on advertissement leaf at beginning.

FIRST EDITION OF LAGRANGE'S FOUNDATION WORK ON ANALYTICAL MECHANICS. Lagrange's masterpiece, the *Méchanique analitique*, was an extension on Newton's work on mechanics. In it he moulded theoretical mechanics into a system from which fundamental equations describing the motions of any systems of bodies could be derived. To achieve this Lagrange combined the principle of virtual velocities with d'Alembert's principle (see lot 242). He thereby set down the principle of virtual velocities as applied to mechanics. In his preface, Lagrange draws attention to the absence of diagrams in the book, which he believed the lucidity of his own presentation had rendered superfluous. "With the appearance of the *Mecanique analytique* in 1788, Lagrange proposed to reduce the theory of mechanics and the art of solving problems in that field to general formulas, the mere development of which would yield all the equations necessary for the solution of every problem ... [it] united and presented from a single point of view the various principles of mechanics, demonstrated their connection and mutual dependence, and made it possible to judge their validity and scope" (DSB). Dibner *Heralds of Science* 112; Grolier/Horblit 61; Norman 1257.

Estimate: $2,000-3,000

581

LAGRANGE, Joseph Louis (1736-1813). *Théorie des fonctions analytiques, contenant les principes du calcul différentiel*. Paris: Imprimerie de la République, Prairial an V [1797].

4° (276 x 215 mm). Original French marbled boards, uncut. *Provenance*: General Armand-Samuel Marescot (1758-1831), French General in the division of engineers under Napoleon (presentation inscription from the author on the title-page: "Au Cm. Marescot Général de Division de Génie de la part du Conseil de l'École Polytechnique. [signed with his calligraphic monogram]"); Paris, Ecole polytechnique (ink stamp on title-page).

FIRST EDITION. PRESENTATION COPY TO FRENCH GENERAL OF ENGINEERS, MARESCOT. In this work Lagrange attempted to show that power series expansions are sufficient to provide differential calculus with a solid foundation. It dominated the study of the functions of a complex variable throughout the nineteenth century.

Two issues of this work exist, with no priority established. The Norman copy contains 277 numbered pages and forms a separate publication, whereas the other issue contains 276 numbered pages and comprises Vol. III of the ninth cahier of the *Journal de l'École Polytechnique*. An interesting association copy given by Lagrange, then teaching analysis at the École Polytechnique, to one of Napoleon's distinguished generals of the division of engineers. PRESENTATION COPIES BY LAGRANGE ARE RARE. Riccardi I(2), 3; Norman 1258.

Estimate: $1,000-1,500

582

LAMARCK, Jean Baptiste de (1744-1829). Autograph manuscript signed ("Delamarck"), also signed by Auguste-Denis Fougeroux de Bondaroy and René Desfontaines, a review of Antoine-Laurent de Jussieu's treatise *Genera plantarum* (Paris 1789), dated "à l'Académie" [des Sciences], 1 July, 1789. 8 pages, 4°, on 2 sheets of pale blue-green paper, deckle edges preserved; a draft, with a few minor corrections.

This favorable review of Jussieu's epochal work (see lot 561) by Lamarck and his fellow Académiciens Fougeroux de Bondaroy and Desfontaines was recorded in the *Registres de l'Académie* and published, with only one or two minor changes, on pages 5-11 of Jussieu's book, under the heading "Extrait des registres de l'Académie Royale des Sciences, du premier Juillet 1789." It served in this context as the approbation of the *Académie.*

Like Jussieu, Lamarck devised a system of plant classification that rejected the artifical sexual Linnaean classification scheme in favor of a system based on the obvious characteristics of plants that was far easier to use. The earliest appearance of his method of classification appeared in his *Flore française*, first published in 1779 and reprinted in 1795. In 1805 A. P. de Candolle, asked by Lamarck to handle the preparation of a new edition, made major revisions to the text, including the substitution of Jussieu's classification system for Lamarck's. Lamarck himself identified several new species and genera; he published these discoveries as articles in various publications from 1784 to 1792. Norman 1259.

Estimate: $2,000-3,000

583

LAMARCK, Jean Baptiste de (1744-1829). *Recherches sur les causes des principaux faits physiques.* Paris: Maradan, seconde année de la République [1794].

2 volumes, 8° (208 x 136 mm). Half-titles, engraved plate by Bovinet after Maréchal, folding letterpress table. (Occasional foxing or discoloration.) Original pastepaper wrappers, later hand-lettered paper spine labels, UNCUT (backstrips and covers chipped and frayed). FIRST EDITION of the first of Lamarck's three full-length treatises on chemistry. Although Lamarck's chemical theories are often dismissed because of his continued belief in the four elements, they are of interest because of their central importance in the later development of his theory of evolution. His view of the natural evolution of chemical compunds paralleled his theory of the evolution of living species, but in reverse: in his view only living beings could produce chemical compounds, an aberration from the natural tendency of inorganic matter to gradually decompose into its constituent elements, in the process producing all known inorganic substances. This mineral hierarchy of being had in common with Lamarck's theory of species evolution an emphasis on the "gradual and successive production of forms, while denying the relevance of defined species" (Norman). Duveen, p. 334; Wellcome III, p. 435; Norman 1260.

[*With*:]

[LAMARCK]. *Discours d'ouverture d'un cours de zoologie, pour l'an XI.* [Paris, 1803]. 8° (215 x 135 mm). 23 leaves. Half-title, drop-title. (Marginal soiling, occasional foxing). Contemporary plain orange wrappers (soiled). FIRST EDITION. Norman 1266.

(3)

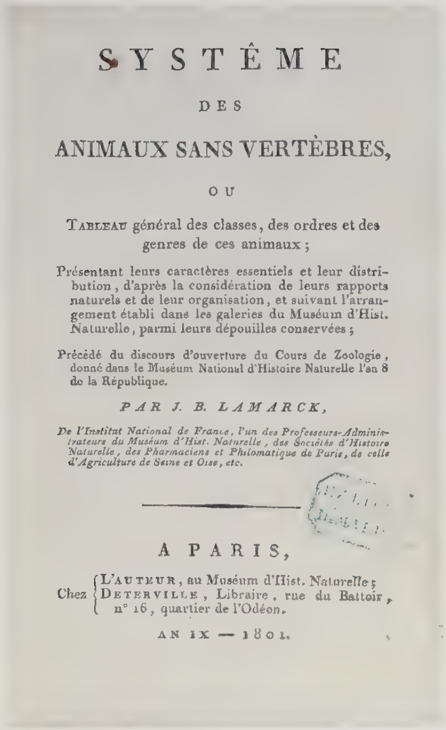
Estimate: $700-900

584

LAMARCK, Jean Baptiste de (1744-1829). *Système des animaux sans vertèbres, ou tableau général des classes, des ordres et des genres de ces animaux.* Paris: Crapelet for the author and Déterville, an IX 1801.

8° (192 x 115 mm). Half-title, 8 plates of letterpress tables, of which 5 folding, addenda leaf "Seconde addition," paginated 402bis (verso blank) misbound after 26/7 (instead of after 26/1). Interleaved throughout. (First folding table with 4-inch fold break, small marginal wormhole to half-title, occasional very light foxing to tables.) Contemporary French sheep-backed boards, calf lettering-piece on smooth spine (joints cracked, upper joint quite fragile, rubbed); morocco-backed folding case.

Provenance: THE AUTHOR'S COPY (his autograph textual revisions in brown ink on 18 of the inserted blank leaves, and occasional marginal corrections); Dr. Maldan (19th-century inkstamp on title).



SYSTÊME

DES

ANIMAUX SANS VERTÈBRES,

OU

TABLEAU général des classes, des ordres et des genres de ces animaux;

Présentant leurs caractères essentiels et leur distribution, d'après la considération de leurs rapports naturels et de leur organisation, et suivant l'arrangement établi dans les galeries du Muséum d'Hist. Naturelle, parmi leurs dépouilles conservées;

Précédé du discours d'ouverture du Cours de Zoologie, donné dans le Muséum National d'Histoire Naturelle l'an 8 de la République.

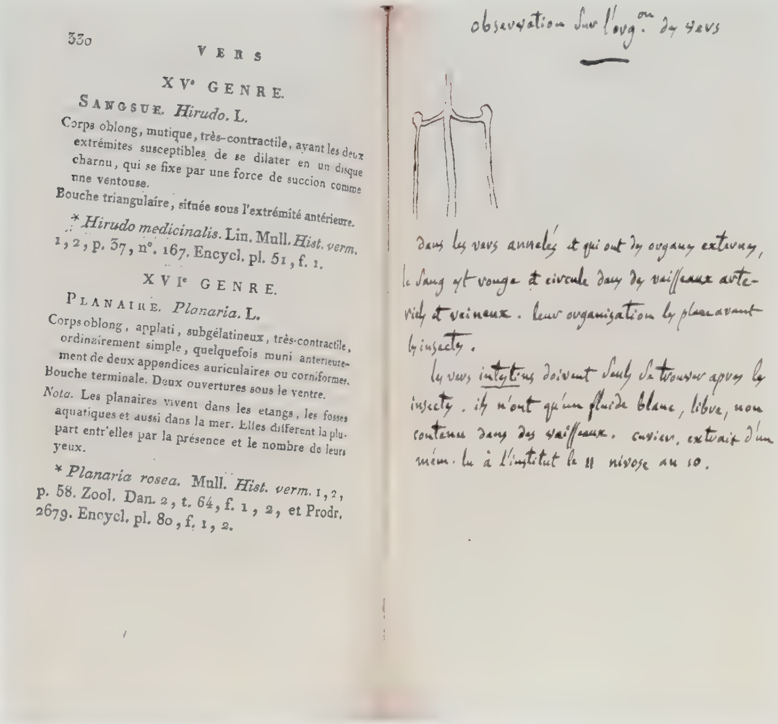
PAR J. B. LAMARCK,

De l'Institut National de France, l'un des Professeurs-Administrateurs du Muséum d'Hist. Naturelle, des Sociétés d'Histoire Naturelle, des Pharmaciens et Philomatique de Paris, de celle d'Agriculture de Seine et Oise, etc.

A PARIS,

Chez L'AUTEUR, au Muséum d'Hist. Naturelle;
DETERVILLE, Libraire, rue du Battoir, n° 16, quartier de l'Odéon.

AN IX — 1801.



330

VERS

XVe GENRE.

SANGSUE. *Hirudo.* L.

Corps oblong, mutique, très-contractile, ayant les deux extrémites susceptibles de se dilater en un disque charnu, qui se fixe par une force de succion comme une ventouse.

Bouche triangulaire, située sous l'extrémité antérieure.

* *Hirudo medicinalis.* Lin. Mull. *Hist. verm.* 1, 2, p. 37, n°. 167. Encycl. pl. 51, f. 1.

XVIe GENRE.

PLANAIRE. *Planaria.* L.

Corps oblong, applati, subgélatineux, très-contractile, ordinairement simple, quelquefois muni antérieurement de deux appendices auriculaires ou corniformes.

Bouche terminale. Deux ouvertures sous le ventre.

Nota. Les planaires vivent dans les etangs, les fosses aquatiques et aussi dans la mer. Elles different la plupart entr'elles par la présence et le nombre de leurs yeux.

* *Planaria rosea.* Mull. *Hist. verm.* 1, 2, p. 58. Zool. Dan. 2, t. 64, f. 1, 2, et Prodr. 2679. Encycl. pl. 80, f. 1, 2.

observation sur l'org.on des vers

dans les vers annelés et qui ont des organes externes, le sang est rouge et circule dans des vaisseaux artériels et veineux. leur organisation les place avant les insectes.

les vers intestins doivent seuls se trouver après les insectes. ils n'ont qu'un fluide blanc, libre, non contenu dans des vaisseaux. cuvier, extrait d'un mém. lu à l'institut le 11 nivose an 10.

LAMARCK'S ANNOTATED COPY OF THE FIRST EDITION OF THE FIRST PUBLISHED STATEMENT OF HIS EVOLUTIONARY THEORY OF SPECIES DEVELOPMENT. Lamarck had first presented his theory of "evolution" (a term not yet used in this context) in the opening discourse of his course on invertebrates at the Muséum d'Histoire Naturelle in Paris in 1800. First printed in the present work, the 48-page *Discours d'ouverture* contains Lamarck's first statement of his theory of the inheritance of acquired characteristics, and of his idea of the progressive process of species differentiation, from the simplest to the most complex. The *Système* represented a definite advance in zoological classification. In it Lamarck "separated spiders and crustaceans from insects, and classified worms into truer categories than had Linné. He separated animals into vertebrates and invertebrates, introducing the latter term" (Dibner).

Of Lamarck's interleaved revisions the longest and most detailed note contains text meant to be inserted on page 14 of the "Discours d'ouverture." In this significant revision Lamarck supplies two additional examples of the inheritance of acquired characteristics, both relating to the visual apparatus of invertebrates, specifically snakes and fish. ("Snakes, who crawl along the surface of the earth, needed to be able to see raised objects or objects above them. This requirement must have influenced the position of the eyes of these animals, and in fact their eyes are placed directly on top of their heads... Forced however to compensate for their lack of frontal vision... they could only perceive [objects in front of them] by feeling them with their tongues, which they thus were obliged to stretch out with all their strength..."). Lamarck incorporated these two examples, almost word for word, in chapter 7, Part I, of his *Philosophie zoologique* (1809, vol. I, pp. 251-253). Of the remaining interleaved insertions, only one other (facing p. 330) is more than a few lines in length. One of two annotations to be illustrated with a small ink sketch, this note is also of interest, as it distinguishes ringed from intestinal worms and revises the positions Lamarck had previously assigned to them in the hierarchy of species.

Dibner, *Heralds of Science* 194; Garrison-Morton 215.5; Norman 1261.

Estimate: $6,000-8,000

585

LAMARCK, Jean Baptiste de (1744-1829). *Système des animaux sans vertèbres, ou tableau général des classes, des ordres et des genres de ces animaux.* Paris: Crapelet for the author and Déterville, an IX—1801.

8° (214 x 135 mm). Half-title, 8 plates of letterpress tables, of which 5 folding, addenda leaf "Seconde addition" bound in at end. (First and last quires tearing free of stitching, half-title holed and nearly detached, occasional mostly marginal foxing, small stain to last two leaves.) Original pastepaper wrappers, title neatly ink-lettered on upper wrapper, UNCUT (hinges torn, tears along backstrip, a few small tears to edges of covers, backstrip faded); modern morocco-backed folding case.

A FINE COPY OF THE FIRST EDITION. Dibner *Heralds of Science* 194; Garrison-Morton 215.5; Norman 1262.

Estimate: $1,500-2,000

586

LAMARCK, Jean Baptiste de (1744-1829). *Hydrogéologie ou recherches sur l'influence qu'ont les eaux sur la surface du globe terrestre.* Paris: the author, Agasse, and Maillard, an X [1802].

8° (203 x 128 mm). (Foxing to first and last few leaves, paper flaw causing marginal tear to Q4.) 19th-century quarter mottled sheep, spine gilt, edges stained yellow (small gouge to leather on lower cover, coners bumped).

FIRST EDITION OF A "BIBLIOGRAPHIC RARITY ESSENTIALLY UNKNOWN TO MODERN GEOLOGISTS AND HISTORIANS OF SCIENCE" (Carozzi, p. v). Lamarck's approach to geology was characteristic of his scientific method - "concern with the general principles and contempt for those who interested themselves too much with the specifics" (DSB). In his *Hydrogéologie*, which he had originally intended as a much broader work, Lamarck set forth a geological theory in which water was the main agent of change. "Although Lamarck's geological views were not original (he was strongly influenced by Buffon and Daubenton, among others), they were an important part of his conception of nature. His preoccupation with marine fossil shells had a decisive influence on his choice of geological theories. Since such shells had to have been laid down in water, he needed a theory to explain how this was possible. As in his meteorology, he used the moon as the main cause, in this case of a constant slow progression of the oceans around the globe. The main geological force was water acting according to uniformitarian principles over millions of years. The substances of the mineral kingdom were produced by the progressive disintegration of organic remains; water operated on these products to produce geological formations such as mountains... Some historians have thought that Lamarck's perception of a slowly changing environment and the resulting necessity of organisms to change or become extinct (a possibility he could not accept) led him to his theory of evolution" (DSB). "A critical study of *Hydrogéologie* reveals the modern character of so many of Lamarck's fundamental concepts that his scientific rehabilitation as a geologist seems imperative for a correct understanding of the history of geology" (Carozzi, pp. v-vi). Along with the term *hydrogéologie*, which he defined as the study of the external crust of the globe, Lamarck also coined the term *biologie* in this work (in its modern use of the study of living organisms). A surviving printer's bill records a press run of 1025 copies, printed, like most of Lamarck's works, at his own expense.

A. V. Carozzi, translator and editor, *Hydrogeology* (Urbana, Ill., 1964); Ward and Carozzi 1312; Norman 1263.

Estimate: $800-1,200

○587

LAMARCK, Jean Baptiste de (1744-1829). *Recherches sur l'organisation des corps vivans*. Paris: the author, Maillard, [1802].

8° (213 x 134 mm). Half-title, folding letterpress table. (Occasional foxing, first and last few leaves a bit soiled.) Original blue pastepaper wrappers (worn, hinges torn, lower portion of backstrip defective). *Provenance*: Gersin (presentation inscription from the author on front pastedown, "Au Citoyen Gersin, de la part de son affectionné frere Lamarck"); 19th-century ms. shelfmark label on spine.

PRESENTATION COPY OF THE FIRST EDITION OF THE FIRST FULL-LENGTH EXPOSITION OF LAMARCK'S THEORY OF EVOLUTION. In this expanded presentation of his theory, first enunciated two years earlier in the *Système des animaux sans vertèbres*, Lamarck attempted to explain the reasons for and *modus operandi* of the evolution of animal and plant species. "Lamarck believed that changes in species occurred over time as the result of two factors: first, a natural tendency in the organic realms towards increasing complexity, as a means of explaining the hierarchical groupings of the major groupings... of animals and plants; and second, the influence of the environment as the factor responsible for all deviations from this norm" (Norman). "Lamarck's conception of a natural tendency toward increasing complexity [in living organisms] provided a perfect complement to his views of the mineral kingdom with the opposite natural tendency. In both cases a long time span allowed nature to do her work and local circumstances explained irregularities. Among living beings, irregularities included all organisms below the level of the 'masses,' which usually meant classes but sometimes was extended to orders and families, never to genera and species" (DSB). This work contains two of Lamarck's most famous hypotheses: "spontaneous generation, as a means of generating the simplest life forms; and the development, through repeated use, of new and heritable organs, as a means of producing more complex species" (Norman).

RARE. Norman 1264.

Estimate: $1,000-1,500

○588

LAMARCK, Jean Baptiste de (1744-1829). *Recherches sur l'organisation des corps vivans*. Paris: the author, Maillard, [1802].

8° (203 x 129 mm). Half-title, folding letterpress table. (Some faint dampstaining to lower margins.) 20th-century half marbled sheep antique. *Provenance*: JOSEPH LOUIS LAGRANGE (1736-1813), astronomer, author of important works on celestial mechanics (presentation inscription from the author on slip mounted on half-title); Dn. C. Auffret(?), 19th-century inscription on front flyleaf.

FIRST EDITION, PRESENTATION COPY TO LAGRANGE. EXTRA-ILLUSTRATED COPY, containing the following inserts: LAMARCK. Leaf of autograph notes, n. p., n.d. (his signature clipped and mounted on the recto), containing reflections on the causes of social oppression and injustice (tipped in to front flyleaf), with a statement of the authenticity of the hand written at the end, signed Lucy (?); JUSSIEU, Antoine Laurent de (1748-1836), botanist. Autograph note signed ("De Jussieu, de l'Acad. des Sciences"), n.p., n.d. [but before 1793], recommending a former student named Morel for the post of naval surgeon ("Naval surgeons with knowledge of natural history could be extremely useful for that science by procuring new materials"); CUVIER, Georges (1769-1832) and Antoine Laurent de JUSSIEU. Printed document signed ("G. Cuvier" and "Jussieu"), a certificate of attendance at Cuvier's course in comparative anatomy at the Muséum national d'histoire naturelle, dated 22 germinal, l'an 7 [1799] (bound in at end); lithograph portraits of Lamarck and Cuvier, both by Ambroise Tardieu, engraved portait of Lagrange (bound in at front); engraved botanical plate of seminiferous plants by P. J. F. Turpin, plate 35 from his *Essai d'une iconographie élémentaire... des végétaux* (1820), PRINTED ON VELLUM (loosely inserted). Norman 1265.

Estimate: $1,500-2,000

ɔ589

LAMARCK, Jean Baptiste de (1744-1829). *Philosophie zoologique, ou exposition des considérations relatives à l'histoire naturelle des animaux.* Paris: Dentu, the author, 1809.

3 parts in 2 volumes, 8° (216 x 139 mm). Half-titles. (Scattered mostly light spotting, occasional browning, small hole to 3/1 in vol. 1 catching 2 letters). Original plain blue wrappers, printed paper spine labels (minor wear to backstrips, slightly soiled); folding cloth case. FIRST EDITION OF LAMARCK'S MOST COMPLETE PRESENTATION OF HIS THEORY OF EVOLUTION, "a classic in the literature of evolutionary theory" (PMM). Part I of the *Philosophie zoologique* presents in more detail Lamarck's theory of evolution as the result of two factors, the tendency of species toward increasing complexity and the influence of the environment, responsible for all variations from this norm. Although the concept of ranging all forms of life in a single series, from the simplest to the most complicated, dated back to antiquity, Lamarck's innovation was to suggest "that this scale corresponds to an order of historical development of the higher forms. This he did by tracing the progression in the reverse direction and observing the gradual changing, simplification and ultimate disappearance of the features distinguishing the higher forms as each lower scale is reached" (PMM). In Part II, Lamarck "developed his views on the physical nature of life, its spontaneous productions resulting in simple cellular tissue, and its characteristics at the simplest level, the lower ends of the plant and animal series. While these two parts were very important in summarizing many of his evolutionary views, they do not differ significantly from the positions of 1802. The third part contains the most important additions to the earlier theories. In this section Lamarck deals in great detail with the problem of a physical explanation for the emergence of higher mental facilities... Lamarck's breakthrough was tying a progressive development of higher mental facilities in a physical way to structural development of the nervous system... Higher mental faculties could emerge precisely because they were a product of increased structural complexity... For Lamarck one of the most important events in the evolutionary process was the development of the nervous system, particularly the brain, because at that point animals began to from ideas and control their movements" (DSB).

Garrison-Morton 216; PMM 262; Norman 1267.

(2)

Estimate: $4,000-6,000

ɔ590

LAMARCK, Jean Baptiste de (1744-1829). *Histoire naturelle des animaux sans vertèbres.* Paris: Verdière [vols. 1-3]; Déterville and verdière [vols. 4-5]; the author [vol. 6-7], 1815-1822.

7 volumes, 8° (197 x 125 mm). 8 half-titles, vol. 6 in 2 parts, separately paginated. (Occasional light foxing.) 19th-century half calf, rebacked in modern morocco (corners worn).

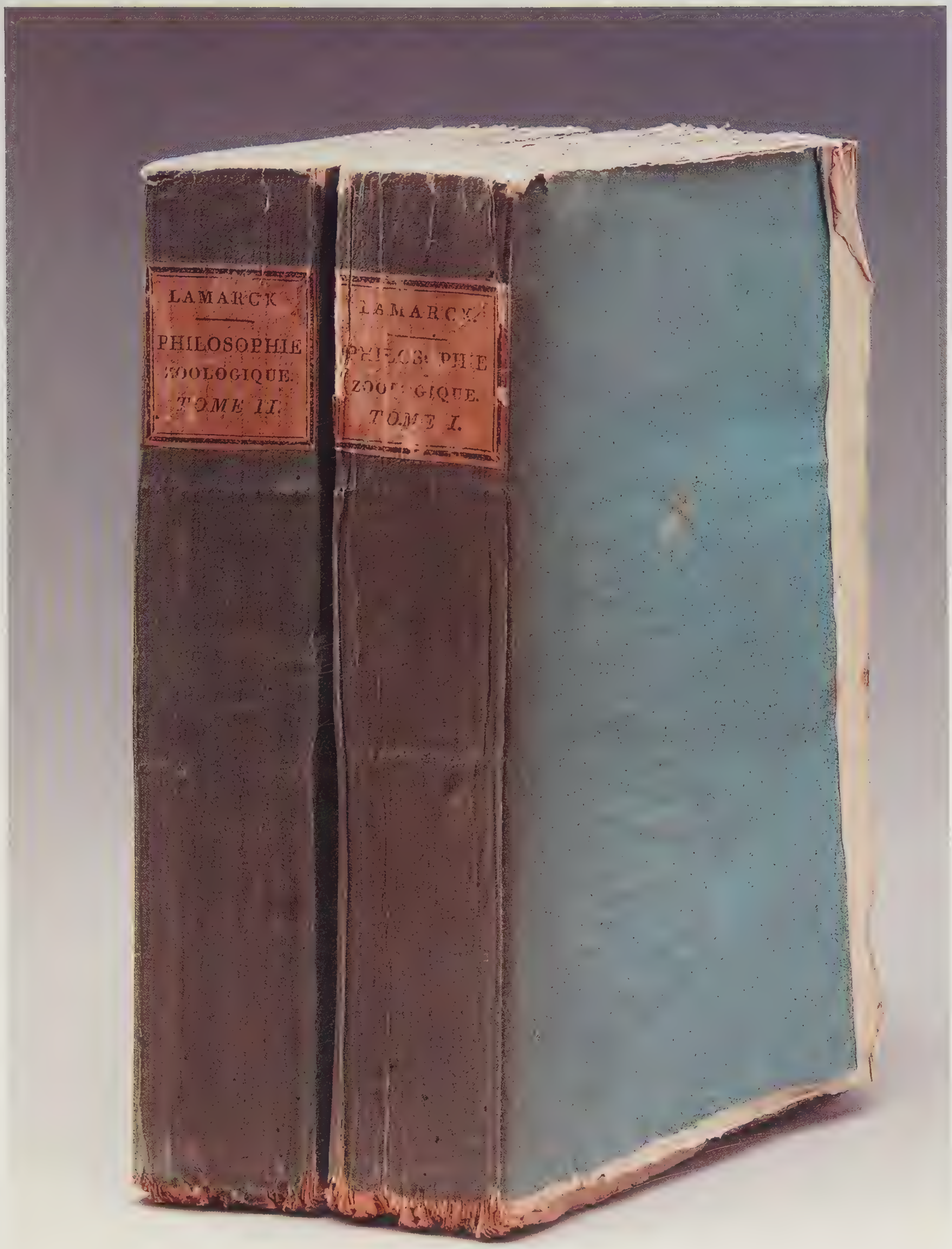
Provenance: Alexander Macleay (1767-1848), entomologist (presentation inscription from the author on versos of the half-titles in vols. 1 and 5, Macleay's signature on versos of titles of vols. 2-7; William Sharp Macleay (1792-1865), zoologist, son of A. Macleay (signatures on half-titles of vols. 6 and 7; Edward Bagnall Poulton (1856- 1943), who donated this copy in January 1925 to: the Linnean Society of London (bookplates).

PRESENTATION COPY OF THE FIRST EDITION. Along with the *Philosophie zoologique*, the best known exposition of Lamarck's theory of evolution appears in the introduction to this comprehensive treatise on invertebrates. Here he summarized his evolutionary views in four laws: "the natural tendency toward increasing organic complexity; the evolution of new organs in animals through the indirect influence of the environment; alteration of the body through the acquisition of new habits; and the inheritance of acquired characteristics" (Norman). "Too much energy has been spent attacking this last law; because it represents an assumption not believed today, it has been said that this disproves Lamarck's whole theory of evolution. The historical context of Lamarck's thought has been forgotten. Most of his contemporaries believed in the inheritance of acquired characteristics, so much so that they rarely felt any need to offer proof of it" (DSB).

Garrison-Morton 316; Wellcome III, p. 435; Norman 1268.

(7)

Estimate: $2,000-3,000


LAMARCK
PHILOSOPHIE
ZOOLOGIQUE.
TOME II.
LAMARCK
PHILOSOPHIE
ZOOLOGIQUE.
TOME I.

591

LAMBERT, Johann Heinrich (1728-1777). *Photometria sive de mensura et gradibus luminis, colorum et umbrae.* Augsburg: Christoph Peter Detleffsen for the widow of Eberhard Klett, 1760.

8° (200 x 128 mm). 8 folding engraved plates. (A few leaves stained, one small internal tear on N4 just catching a few letters, some very minor marginal staining.) Original buff wrappers, uncut (a few tears and minor defects to spine).

FIRST EDITION OF THE FOUNDATION FOR THE EXACT MEASUREMENT OF LIGHT. "Both Kepler and Huygens had investigated the intesity of light, and the first photometer had been constructed by Pierre Bouguer (1698-1758); but the foundation of the science of photometry—the exact scientific measurement of light—was laid by Lambert's 'Photometry' ... In the *Photometria* he described his photometer and propounded the law of the absorption of light named after him. he investigated the principles and properties of light, of light passing through transparent media, light reflected from opaque surfaces, physiological optics, the scattering of light passing through transparent media, the comparative luminosity of the heavenly bodies and the relative intensities of coloured lights and shadows. His discoveries are of fundamental importance in astronomy, photography and visual research generally" (PMM). IN ENTIRELY ORIGINAL CONTITION. Grolier/Horblit 62; PMM 205; Norman 1269.

Estimate: $18,000-24,000

○592

[LA METTRIE, Julien Offray de (1709-1751)]. *L'homme machine*. Leiden: Elie Luzac fils, 1748.

12° (125 x 80 mm). Contemporary Dutch half vellum. *Provenance*: Joseph Mazzini Wheeler (19th-century signature on title-page of this and following work, and his bibliographical notes on front free endpaper).

Second edition of La Mettrie's controversial treatise which marked a culminating phase in the rise of modern materialism. He refuted Descartes' qualitative distinction, and recognized only differences of degree between man and animals and denied the existence of the soul. Due to its heretical nature, this anonymous work was ordered to be burned by the magistrates of Leiden, and La Mettrie was forced to leave Holland. "*L'homme machine* outlined a medical philosophy in the absolute sense of the term, springing as it did from the assumption that reliable knowledge qbout man's nature was forthcoming only from the facts and theories that the medical sciences—anatomy, physiology, biology, pathology--could furnish. The human being was for La Mettrie a highly complex 'living machine' of unique design that only those skilled in the investigation of the body's innermost secrets could hope eventually to explain ... Seen in historical perspective, both of the iatromechanistic tradition that had reached La Mettrie through Boerhaave and of the Cartesian automatist biology that had filtered down to him through numerous intermediaries" (DSB).

Three editions of *L'homme machine* were published by Elie Luzac fils in 1748, each with a different pagination. "The first edition was largely destroyed by the Leiden magistrates, and is therefore exceptionally rare" (Norman). Garrison-Morton 586; Wellcome III, p. 438; Norman 1270.

[*Bound after*:]

LA METTRIE, Julien Offray de. *L'homme plante*. Potsdam: Chrétien Frédéric Voss, [1748]. 12° (124 x 80 mm). FIRST EDITION of "La Mettrie's attempt at a universal organic analogy, pointing out various parallel organs and vital functions in plants and in the human body" (Norman 1271). Bound at the end of the volume are two anonymously written related works: the first is entitled *L'homme plus que machine* (Londres [i.e. Holland], 1748), and according to Barbier was written by Le Mettrie's publisher Elie Luzac; the second is a fifth augmented edition of a work originally written by Charles Le Cène (Amsterdam 1684), entitled *Etat de l'homme dans la peché originel* (no place, 1740). See Barbier II, 438 and 290, respectively.

Estimate: $1,500-2,500

○593

LANA TERZI, Francesco (1631-1687). *Prodromo overo saggio di alcune inventioni nuove premesso all' arte maestra*. Brescia: Rizzardi, 1670. 2° (336 x 240 mm). 20 engraved plates, all but two printed on facing pages of pairs of conjugate leaves, woodcut initials and tail-piece ornaments, type ornament head-pieces. (Minor marginal tears to first 2 leaves, a few quires unstitched.) Contemporary boards, EDGES UNCUT (covers stained, tears to backstrip).

FIRST EDITION of an important work in the history of aeronautics. In the *Prodromo* Lana Terzi presented several technological innovations, of which the best known is his proposal for a "flying boat," to be airborne by four spheres of thin copper from which air had been exhausted. Although the vehicle was never tested, and would have proved unworkable, since the copper would not have been able to withstand the atmospheric pressure, Lana Terzi's reasoning was correct. In surmising that a vessel containing a semi-vacuum would weigh less than the surrounding air and would consequently become buoyant, Lana Terzi formulated the earliest concept of flight based on aerostatic principles. "While Lana apparently originated the method of reducing air density in a vessel by heating it, the implications of this phenomenon in relation to flight were not fully understood until the advent of the Montgolfier brothers a century later" (Norman). Dibner *Heralds of Science* 176; Wellcome III, p. 440; Norman 1272.

Estimate: $3,000-4,000

594

LANCISI, Giovanni Maria (1654-1720). *De subitaneis mortibus libri duo.* Rome: Francisco Buagni, 1707.

4° (229 x 171 mm). Half-title, probable third state of the title, with engraved arms of Pope Clement XI, woodcut initials and tailpieces. Blank a1 removed. (Scattered light foxing, occasional browning, rubbing from effaced inkstamp or signature in lower margin of title, patched on verso, lower blank margin of N4 restored.) Contemporary vellum over pasteboard, morocco lettering-piece, mottled edges (minor worming to spine, slightly soiled); modern cloth folding case. *Provenance*: Michael Angelus, philosopher and doctor of medicine (18th-century inscription on half-title, his? monogram CMA on title).

FIRST EDITION of a work that "laid the foundation for a true understanding of cardiac pathology" (Garrison-Morton). In 1706 Pope Clement XI asked Lancisi, the pontifical physician, to investigate a mysterious outbreak of sudden deaths in Rome. Without elucidating the cause of the near-epidemic, Lancisi dealt masterfully in the present work with cardiac pathology in general, demonstrating "that sudden deaths were often due to hypertrophy and dilatation of the heart, and to various kinds of valve defects" (DSB). He also "gave the first description of valvular vegetation, and included in his book a historical survey of the literature and a classification of the cardiac diseases then recognized. Leibowitz [*The history of coronary heart disease*, Berkeley 1970] suggests that Lancisi's work 'must be the first epidemiological study of a non-communicable condition' (pp. 74-75)" (Norman). Garrison-Morton 2731; *Heirs of Hippocrates* 687; Wellcome III, p. 441; Norman 1273.

Estimate: $1,500-2,000

595

LANCISI, Giovanni Maria (1654-1720). *Dissertatio de nativis, deque adventitiis Romani coeli qualitatibus, cui accedit historia epidemiae rheumaticae.* Rome: Francisco Gonzago, 1711.

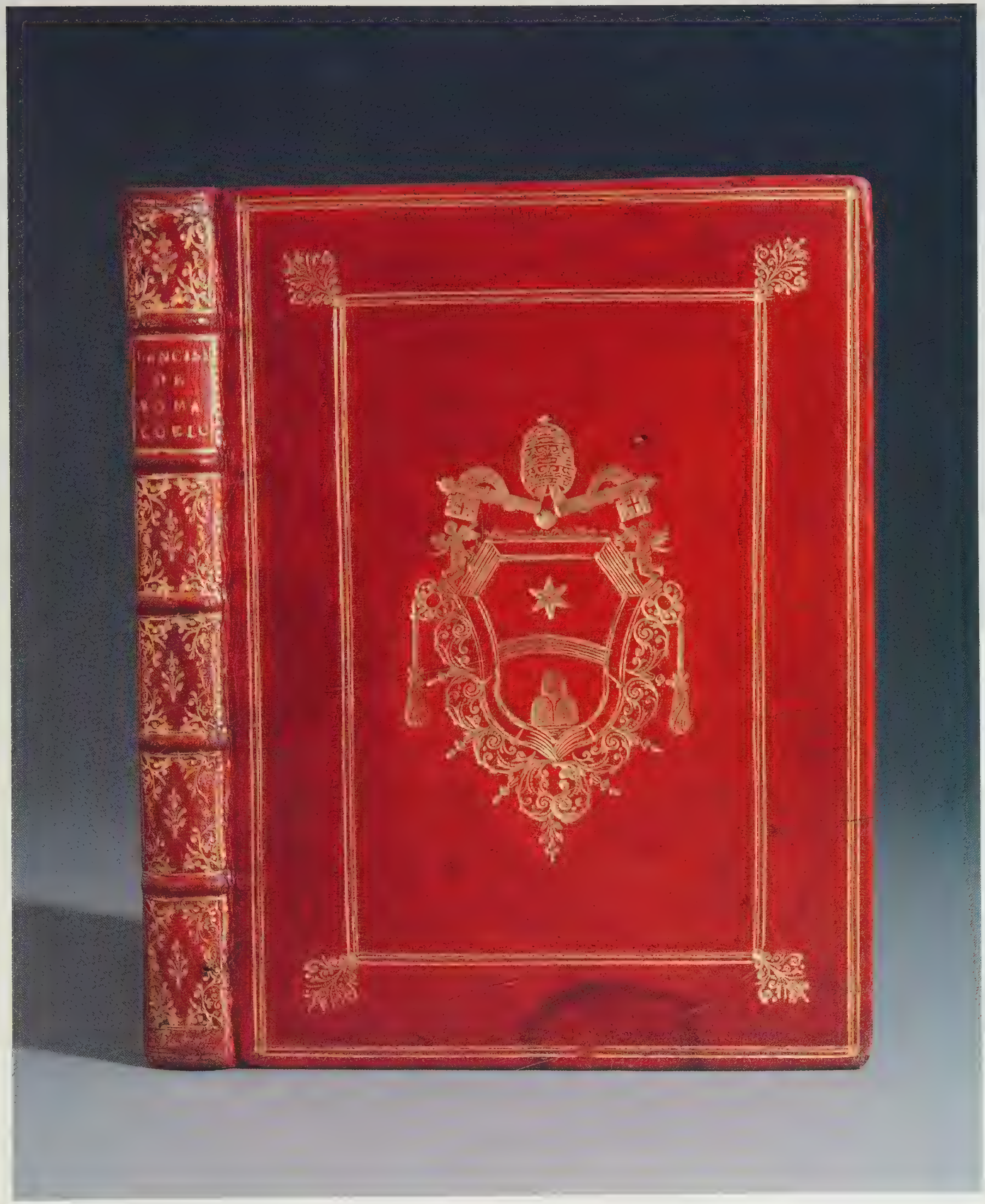
4° (245 x 181 mm). 2 parts in one, section title to part 2, engraved title vignette by Jakob Frey after Passari, one engraved initial, woodcut head-piece, tail-pieces and initials. (Foxing, light dampstaining to lower margins of first and last few leaves, a very few marginal marks in blue crayon.) Contemporary Roman red morocco, covers panelled in gilt with gilt arms of Pope Clement XI, spine gilt, gilt edges (minor dampstain to bottom of covers, slight wear to corners, joints, and extremities of spine, few small wormholes to spine and one to upper cover.)

Provenance: Bound for the dedicatee Pope Clement XI (Giovanni Francesco Albini, 1649-1721, Pope 1700-1721); papal(?) inkstamp on title; a few minor ink textual corrections; effaced 18th-century inscription, with shelfmarks, on front flyleaf; unidentified owner (Christie's London, 30 May 1984, lot 117).

FIRST EDITION, THE DEDICATION COPY, OF ONE OF THE EARLIEST WORKS ON ENVIRONMENTAL HEALTH. As papal physician for 30 years, Lancisi was deeply interested in public health and epidemiology, and his research into contagious diseases was well in advance of his time. "In the present work, the first on municipal hygiene, he examined what he considered to be the health-affecting aspects of the Roman environment, particularly her water supply and the insalubrious Pontine marshes" (Norman). A few years later Lancisi published a study exclusively devoted to the disease-causing effects of the marshes (*De noxiis paludum effluviis libri duo*, 1717), in which he reported on his research into malaria, epidemic in Rome, attributing the disease "by a brilliant intuition" (DSB) to the proliferation of mosquitoes in the swamps, and urging that they be drained, unfortunately without success. The second part of the present work describes the devastating influenza epidemic that originated in Italy in 1709 and swept through most of Europe. Before his death Lancisi donated his personal medical library of over 20,000 volumes to the Hospital of Santo Spirito in Rome for the education of its physicians and surgeons. The Lancisi library, which opened in 1716, remains one of the more important collections for the study of the history of medicine.

Heirs of Hippocrates 689; Osler 3149; Waller 5543; Wellcome III, p. 441; Norman 1274.

Estimate: $10,000-15,000



595

○596

LANCISI, Giovanni Maria (1654-1720). *De motu cordis et aneurysmatibus, opus posthumum in duas partes divisum.* Rome: Giovanni Maria Salvioni, 1728.

2° (368 x 246 mm). Engraved frontispiece portrait of the author by Jakob Frey after Sebastian Conca, title printed in red and black with engraved vignette by C. Gregori, 7 engraved plates of the heart and coronary system after Niccolò Ricciolini, one engraved and a few woodcut initials. (Scattered foxing, title and dedication leaves slightly stained, occasional marginal dampstaining.) Modern plain boards, UNCUT (small perforation to backstrip). *Provenance*: Jo....Maunagioro(?), 18th-century inscription on title; a few 18th-century marginalia.

FIRST EDITION. A posthumously published continuation of *De subitaneis mortibus* (see lot 594), Lancisi's first work on cardiac pathology. In the present work, mainly devoted to the study of aneurysms, Lancisi showed many heart lesions to be syphilitic in nature and gave the first clinical description of syphilis of the heart. As causes of aneurysms he noted syphilis, asthma, palpitation, violent emotions, and excess. "He also reported, based on his won experiments, that mercury injected into the coronary arteries shows up in the chambers of the heart, which led him to speculate that the injected material escaped through venous channels" (Norman). Garrison-Morton 2973; Osler 3152; Wellcome III, p. 441; Norman 1275.

Estimate: $1,200-1,800

○597

LAPLACE, Pierre Simon, Marquis de (1749-1827). *Traité de mécanique céleste.* Paris: Crapelet for J.B.M. Duprat, 1799-1802 (Vols. 1-3); Paris: Courcier, 1805 (Vol. 4); Paris: Huzard-Courcier for Bachelier, 1825-27 (Vol. 5).

5 volumes, 4° (273 x 212 mm [Vol. 1], 274 x 212 mm [Vol. 2], 268 x 211 mm [Vol. 3], 271 x 216 mm [Vol. 4], 263 x 207 mm [Vol. 5]). Half-titles, engraved folding plate in vol. 4. (Some foxing to preliminaries in Vol. 5.) Vols. 1-4 in original pink mottled wrappers, remnants of printed spine labels, unopened and uncut (some chipping and wear to spine ends, some fading); Vol. 5 rebound in modern red quarter morocco, marbled boards. *Provenance*: A. & M. Kiveliovitch (bookplate on title-page of Vol. 5, dated 1915).

FIRST EDITION OF LAPLACE'S FUNDAMENTAL WORK ON CELESTIAL MECHANICS. Published over a period of 27 years, Laplace's monumental *Traité de mécanique céleste* codified and developed the theories and achievements of Newton, Euler, d'Alembert and his contemporary Lagrange. In the tradition of Newton's *Principia* (see lot 692), Laplace "applied his analytical mathematical theories to celestial bodies and concluded that the apparent changes in the motion of planets and their satellites are changes of long periods, and that the solar system is in all probability very stable" (Dibner). Newton remained uncertain with respect to the continuity of our solar system. In this work Laplace also offered explanations unsolved by his predecessors and contemporaries. He "offered a brilliant explanation of the secular inequalities of the mean motion of the moon about the earth—a problem which Euler and Lagrange had failed to solve. He proved that these irregularities are connected with certain solar actions and changes in the orbit of the earth. He also investigated the theory of the tides and calculated from them the mass of the moon" (PMM).

The first four volumes of the work appeared from 1799 through 1805, and contain the laws of mechanics for their application to the motions and figures of the heavenly bodies. The final parts of the fourth volume and the entire fifth volume, really constitute a separate work and contain important material on physics not already included in the original sequence.

The Norman set contains the first state title-pages in the first two volumes, with French Republican dates only and without the added Berlin imprint (printed for European distribution). AN EXTREMELY FINE SET, MOSTLY IN ORIGINAL CONDITION. Dibner *Heralds of Science* 14; Grolier/Horblit 63; PMM 252; Sparrow *Milestones of Science* 125; Norman 1277.

(5)

Estimate: $10,000-15,000

TRAI
DE
MECANIQU
CÉLESTE.
TOME IV.
MÉCA
CÉLE
TOM II
TRAITÉ
DE
MÉCANIQUE
CÉLESTE.
TOME I.

598

LARREY, Dominique Jean, Baron (1766-1842). Collection of 13 medical pamphlets by Baron Larrey, all FIRST EDITIONS, bound in one volume, red quarter hard-grain morocco, with matching chemise and slipcase, from his own library. Paris, Udine, Cairo and Naples: 1797-1838.

Contents:

1. *Remarques sur la constitution physique des Arabes*. Extrait des Comptes rendus des séances de l'Académie des Sciences, séance du 4 juin 1838. Proof copy, signed by Larrey with his initials, with extensive annotations and corrections in his hand.

2. *Mémoire sur le choléra-morbus*. Paris: J.-B. Ballière, 1831. Signed by Larrey with his initials. Wellcome III, p. 452.

3. *Copie d'un mémoire sur le cholera-morbus, envoyé à Saint-Pétersbourg en janvier 1831, pour le concours relativ a cette maladie épidémique*. Paris: Imprimerie de Demonville, 2 mai 1831. Signed by Larrey with his initials.

4. *Considérations sur la fièvre jaune*. Paris: Compère jeune, 1821. Signed by Larrey.

5. *Notice sur la syphilis*. Extrait des Mémoires de médecine, de chirurgie et de pharmacie militaires, volume XXXII. Paris: Imprimerie de Madame Huzard (née Vallat la Chapelle), 1832. Signed by Larrey with his initials.

6. *Notice sur l'épilepsie, suivie de plusieurs observations sur les lésions des os du crâne qui peuvent déterminer cette maladie*. Pp. 257-282 extracted from *Révue médicale*, vol. VIII, juillet 1822. Signed by Larrey with his initials.

7. *Metodo per la cura del morbo epizootico regnante e per la preservazione dalla stesso del cittadino*. Translated from French into Italian by G.B. Zambelli. Udine: Marco Gallici, 1797. Signed by Larrey with his initials. 8. *Chirurgie*. Extrait de l'Encyclopédie moderne. Volume VI, page 601.

9. *Notice sur quelques phénomènes pathologiques observés dans la lésion des nerfs, et dans leur cicatrisation*. Extrait de la Revue médicale française et étrangère, et Journal de clinique de l'Hôtel-Dieu et de la Charité de Paris, mars 1824. One hand-colored lithographed plate. Signed by Larrey with his initials.

10. *Mémoire sur l'ophtalmie regnante en égypte*. Cairo: Imprimerie nationale, An IX [1800/1801]. Signed by Larrey. Larrey was the first to identify the contagiousness of trachoma, which he observed during the Napoleonic invasion of Egypt. The Imprimerie nationale at Cairo, founded by Napoleon, was the first press established in Egypt, and Larrey's pamphlet was one of the first works printed in the Muslim east. Garrison-Morton 5837; Osler 3161; Norman 1279.

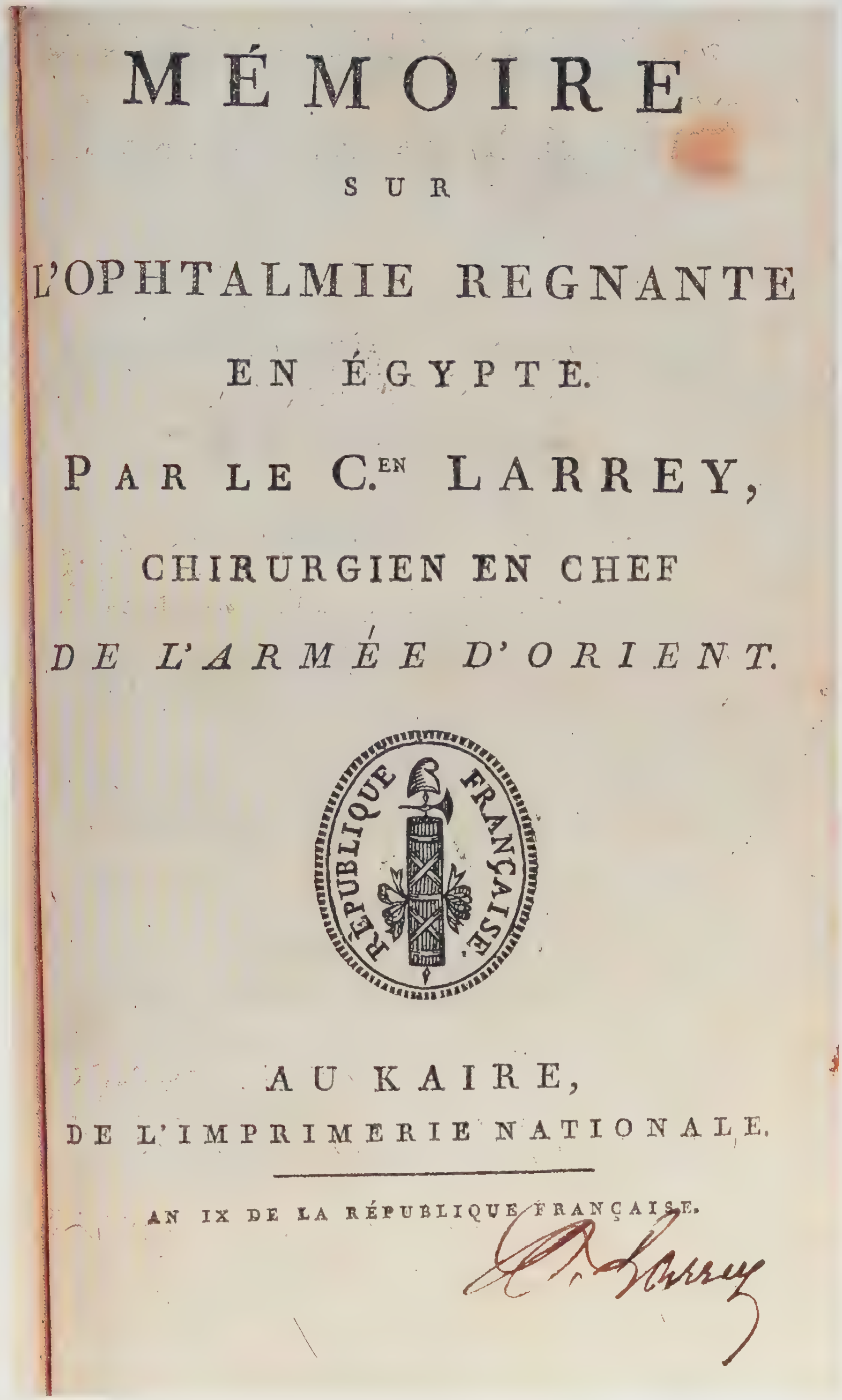
11. *Note sur l'appareil inamovible*. Extrait des Mémoires de médicine, de chirurgie et de pharmacie militaires, tome XLV. One folding engraved plate signed "M$^{\text{r}}$ Porinet del. et sc." Proof copy, with extensive corrections in Larrey's hand.

12. *Mémoire sur les amputations des membres à la suite des coups de feu*. Paris: Du Pont, An V.—1797. Signed by Hippolyte Larrey (1808-1985), son of the author. Larrey's first publication, his doctoral thesis written shortly after he was appointed professor at the l'Hôpital militaire d'instruction du Val-de-Grâce, and based on his already considerble experience as a military surgeon. Wellcome III, p. 451; Norman 1278.

13. *Descrizione dell' incendio de Mosca*. Naples: Da' Torchi dei Porcelli, 1832.

Larrey was chief surgeon to the *Grande armée* of Napoleon, who characterized him as "the most virtuous man I have known." He accompanied Napoleon to Egypt, where he pioneered in the observation of tropical diseases, and on the Russian campaign, of which he left an eye-witness account.

Estimate: $15,000-20,000



MÉMOIRE

SUR

L'OPHTALMIE REGNANTE EN ÉGYPTE.

PAR LE C.^EN^ LARREY,

CHIRURGIEN EN CHEF

DE L'ARMÉE D'ORIENT.

AU KAIRE,
DE L'IMPRIMERIE NATIONALE.

AN IX DE LA RÉPUBLIQUE FRANÇAISE.

D. Larrey

599

LARREY, Dominique Jean, Baron (1766-1842). *Mémoires de chirurgie militaire, et campagnes.* Paris: J. Smith (vol. 3: J. Smith and F. Buisson), 1812-1817.

4 volumes, 8° (199 x 122 mm). 17 engraved plates (2 folding), one signed by François Plée after J.-B. Sarlendière (some foxing, intermittent waterstains to margins, paper flaws to margins of ca. 5 leaves, 2 plates cropped touching image, b4.5(II) detached from sewing). Contemporary green roan spines, marbled boards (rubbed, small losses to one headcap).

Provenance: A. Gubler (ink stamp in each volume); Société d'anthropologie (ink stamp in each volume).

Larrey's *Mémoires* not only presented his recollections of Napoleon's campaigns, but also described the medical innovations for which he was responsible and which contributed substantially to the high morale and success of Napoleon's armies. These included the introduction of the flying ambulance, which removed the wounded to treatment at the rear of the lines, even during the course of battle, and the practice of amputating severely damaged limbs immediately, a technique that was credited with saving many lives.

The publishing history of *Mémoires de chirurgie* is discussed in Norman and Grolier *Medicine*. The present set, like a number of others, has volumes 1 and 2 (both published in 1812) in the apparently later issue with the imprint "Chez J. Smith," and volume 4 (published in 1817) in the apparently earlier issue, with the preliminary quire in 2 and quire 31 in 2. Cancels in this set are: vol. 1, 1/1, 1/2; vol. 2, 15/4, 22/7, 27/5; vol. 3, 3/1, 3/3, 3/4; vol. 4, 1/2, 11/6.

Garrison-Morton 2160; Grolier *Medicine* 56; *Heirs of Hippocrates* 1212; Osler 3162; Waller 5610; Wellcome III, p. 451; Norman 1280.

[*With*:]

LARREY, Dominique Jean. *Recueil de mémoires de chirurgie*, Paris: Compère jeune, 1821.

8° (199 x 122 mm). 4 engraved plates by Ambroise Tardieu after D.A. Duponchel printed facing letterpress captions in the last quire. (Some foxing, waterstain to upper portion of textblock). Contemporary brown sheep spine, marbled boards (slightly rubbed).

Provenance: A. Gubler (ink stamp); Société d'anthropologie (ink stamp).

In this volume Larrey presented the results of his continued research, observation and verification of medical treatments he had previously described in his *Mémoires de chirurgie*.

Waller 5611; Norman 1281.

(5)

Estimate: $4,000-6,000

600

LARREY, Dominique Jean, Baron (1766-1842). *Clinique chirurgicale, exercée particulièrement dans les camps et les hopîtaux militaires, depuis 1702 jusqu'en 1829*. Paris: Gabon, November 1829 (vols. 1-3 and atlas); Paris: J.-B. Ballière, 1832 (vol. 4); Paris: J.-B. Ballière, 1836 (vol. 5).

7 volumes, 8° (210 x 135 mm [vols. 1-4], 200 x 125 mm [vol. 5], 217 x 147 mm [atlas to vols. 1-3]) and 2° (360 x 270 mm [atlas to vol. 5]). Atlas to vols. 1-3: 30 engraved plates (1 double) by S. Botta, Ambroise Tardieu, Mme. Devilliers, François Plée and Smith after Hippolyte Larrey, D.A. Duponchel and J.-B. Sarlandière; atlas to vol. 5: 4 engraved plates, one signed "Coutant sc.," and 13 lithographic plates by Benard after Auguste Foucaud. Vols. 1-4 untrimmed and partially unopened. (Occasional slight browning or foxing). Vols. 1-4 and atlas to vol. 5: original pink printed wrappers (vols. 1-4 rebacked); vol. 5: quarter calf gilt, paper sides (some wear); atlas to vols. 1-3: half sheep, marbled sides (rebacked in calf); modern red cloth cases.

Provenance: Paul Segoud (signature ink stamp in vol. 5); Edinburgh Medical Society Library (ink stamp in atlas to vols. 1-3).

600

EXTREMELY RARE FIRST EDITION. After the defeat of Napoleon, Larrey took up civilian practice and taught medicine in Paris. He published extensively on his medical innovations and observations. The present work on surgical pathology is his longest surgical treatise and the one that is most extensively illustrated. Volumes 1-3 and their atlas were published by Gabon in November 1829, but the edition was soon taken over by J.-B. Ballière, whose imprint dated 1830 is found on the wrappers of the Norman copy; the remaining volumes were published by Ballière in 1832 and 1836. The work is seldom found complete.

Garrison-Morton 5589.1; Wellcome III, p. 451 (without atlas); Norman 1282.

(7)

Estimate: $6,000-10,000

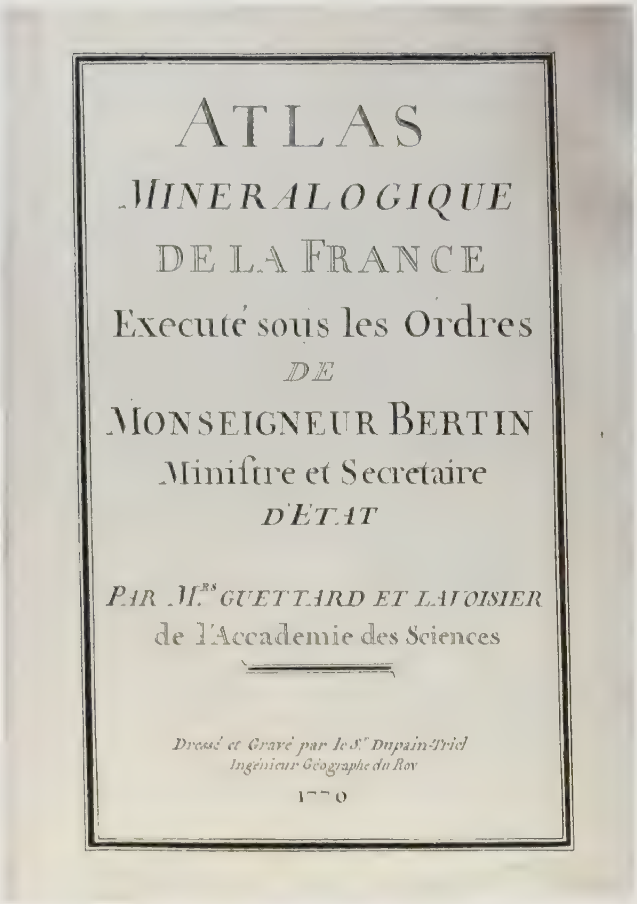
ɔ601

LAVATER, Johann Casper (1741-1801). *Von der Physiognomik.* Leipzig: Weidmanns Erben, 1772.

2 volumes in one, 8° (156 x 95 mm). Engraved title vignette. Contemporary half calf, spine gilt and with lettering piece. *Provenance:* Joh. Theophil. Hoeffel (contemporary ownership inscription on title).

FIRST EDITION. "Lavater was the last of the descriptive physiognomists. He expanded the above work into *Physiognomische Fragmente zur Beförderung der Menschenkenntnis und Menschenliebe* 1775-78. This was translated into English by H. Hunter as *Essays on physiognomy,* London, 1789-98 and other editions. His work was very influential on portraiture." Garrison-Morton 154; Osler 3176; Norman 1285.

Estimate: $1,000-1,500



ATLAS
MINERALOGIQUE
DE LA FRANCE
Executé sous les Ordres
DE
MONSEIGNEUR BERTIN
Miniſtre et Secretaire
D'ETAT

PAR M.RS GUETTARD ET LAVOISIER
de l'Accademie des Sciences

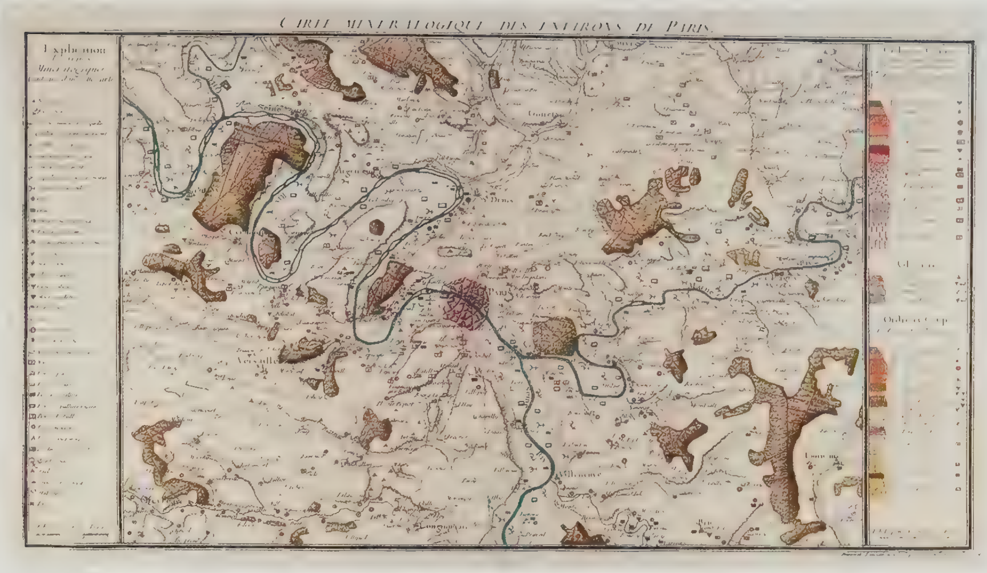
Dressé et Gravé par le S.r Dupain-Triel
Ingénieur Géographe du Roy
1770

602

LAVOISIER, Antoine Laurent (1743-1794) and Jean Étienne GUETTARD (1715-1786). *Atlas minéralogique de la France executé sous les ordres de Monseigneur Bertin Ministre et Secretaire d'Etat.* [Paris: Dupain-Triel, 1767-] 1770.

2° (346 x 246). Calligraphic manuscript title-page, 16 FINE DOUBLE-PAGE HAND-COLORED ENGRAVED GEOLOGICAL MAPS OF VARIOUS REGIONS OF FRANCE, by Dupain-Triel after Lavoisier and Guettard, variously dated from 1766 to 1770, forested areas, rivers, roads, and geological symbols carefully colored by hand, each map with an explanatory key of mineralogical symbols and most with hand-colored vertical stratigraphical cross-sections in the lateral margins, map 11 with an uncolored "Coupe des mines.... en Lorraine" in the right-hand margin, map 14 with an uncolored view of the Vosges in the right-hand margin, 6 maps with right-hand margin left blank; the maps on guards. Maps 6, 14 and 15 with manuscript additions (of 2 or 3 symbols) to the key. (Map 16 slightly darkened in margins and with cropping to fore-edge platemarks, small inkstain to map 5, not affecting image.) Contemporary mottled calf gilt, unidentified remains of gold blocked arms at center of covers, gilt edges (the arms defaced, probably by a Revolutionary vandal, and possibly cut out from these(?) covers and reinserted, spine and board edges rubbed, corners and extremities of spine abraded); folding morocco case.

EXTREMELY RARE COLLECTION OF THE EARLIEST STATE OF LAVOISIER AND GUETTARD'S MAPS FOR THE FIRST GEOLOGICAL ATLAS. In 1767 Henri Bertin, Minister and Secretary of State responsible for mining, commissioned Lavoisier and his teacher the geologist Guettard to prepare a complete geological survey of France. After several field trips, including a 4-month journey through eastern France and part of Switzerland (see lot 484), the two commenced production of a series of geological maps. Lavoisier assumed most of the responsibility for supervising the engraving, by Dupain-Triel, "Ingénieur-Géographe du Roi." The projected atlas was to contain 230 maps. By 1770 sixteen maps had been completed, and on April 25, 1770, Guettard made a progress report to the Académie des Sciences. In 1777, following various political intrigues, and to the dismay of Lavoisier and Guettard, responsibility for continuation of the survey was handed over to Antoine Monnet, Inspector-General of Mines (who is thought to have gathered data for the two in 1776



In 1780 Monnet published six of the Lavoisier-Guettard maps, along with 15 maps begun by Lavoisier and Guettard and completed by Monnet, and 10 by Monnet, under the title *Atlas et description minéralogiques de la France*, attributing the authorship to himself and Guettard and with a long preface of his own. "All of Lavoisier's contributions were ignored... the wealth of information that had been gathered was used without his permission. The feature of showing geological strata was due to Lavoisier's initiative, a point Monnet chose to withhold. The former, angered by this treatment, protested bitterly, but to no avail. Monnet became his obstinate enemy" (Duveen and Klickstein, p. 238). Monnet published a second edition at some time after 1794, containing 14 new maps, of which all but three consisted of the previously unpublished maps by Lavoisier and Guettard.

The present collection contains the 16 maps completed betwen 1766 and 1770 by Lavoisier and Guettard. The areas covered are the provinces of central and eastern France traversed by the two in previous years: l'Île de France, le Véxin, le Brie, le Valois, la Champagne, la Franche-Comté, la Lorraine, l'Alsace, and adjacent areas of Switzerland. The maps are in an early state, without numbering, and with some of the margins left blank, as described above. They correspond to the following numbers from the first and second editions: 40bis, 25, 26, 55, 41, 56bis, 27, 57, 42, 28, 60, 61, 75 (for full titles, see Duveen, *Supplement*, pp. 131-132). Lavoisier later stated that all the plates dated 1766 and 1767 were prepared with his assistance; five of the present maps, showing the region of Paris and parts of central France, bear these dates. Copies of the 16 plates are known to have circulated at an early date: several reviews published between 1775 and 1778 in Rozier's periodical *Observations sur la physique* and in the *Journal de Paris* announced that "the maps already completed at that time were separately available to the public at the office of Dupain-Triel... in both black and white... and colored... copies" (Duveen and Klickstein, p. 238).

The present copy, with its carefully lettered manuscript title and extremely fine coloring, was clearly prepared for presentation or exhibition, and IS LIKELY TO HAVE BEEN THE COPY USED BY GUETTARD FOR HIS PRESENTATION TO THE ACADÉMIE DES SCIENCES. Duveen, *Supplement*, lists three known bound copies of these 16 maps, of which two include an index map of France dated 1784. This copy may be the third, described as "formerly owned by the late Dr. Lemay" (p. 132).

The maps' significance lies in their innovative use of keys and symbols to depict the geological composition of the areas surveyed. "The maps of the *Atlas* feature the chemical symbols used by Guettard... in addition, Lavoisier used the margin of each quadrangle for a vertical section designed to show the stratigraphic composition of the earth's crust.... Although employing chemical symbols on geological maps was popular for a time, the maps of the *Atlas* had no close imitators; contemporaries and later geologists... found these maps to be models of observational accuracy, but the cartographic techniques of Guettard and Lavoisier were superseded by those developed in subsequent decades..." (DSB).

Duveen and Klickstein 218, *Supplement*, pp. 129-132; Norman 1287.

Estimate: $15,000-20,000

ɔ603

LAVOISIER, Antoine-Laurent (1743-1794). *Opuscules physiques et chymiques*. Paris: Durand, Didot le jeune, Esprit, 1774.

2 parts in one volume, 8° (215 x 137 mm). Variant issue, with a single dedication leaf and conjugate $*a^2$ (title-leaf and dedication leaf) a cancel, 5 cancel leaves, including 4 of the 6 described by Duveen and Klickstein (*A3, *N1, *R1, and *S6, with original leaves P1 and V2), and one (*Q8) not cited by them, 3 folding plates by and after de la Gardette. (Some mostly marginal staining and soiling, occasional foxing and browning.) Original marbled wrappers (torn and fragile, stitching loose). *Provenance*: "Budierai(?) 1775" (signature on title).

FIRST EDITION OF LAVOISIER'S FIRST MAJOR WORK, a "pioneer work" (Duveen and Klickstein), in which Lavoisier first expressed his doubts about the phlogiston theory. The first part contains an historical review of the experiments with gases of Lavoisier's predecessors. In part 2 Lavoisier records the quantitative experiments in combustion and calcination that he had carried out with great excitement during the previous year, and which had "confirmed Lavoisier's suspicions that air, or some constituent of air, played an important role in the processes of combustion and calcination" (DSB). Duveen 339; Duveen and Klickstein 121; Wellcome III, p. 460; Norman 1288.

Estimate: $1,000-1,500

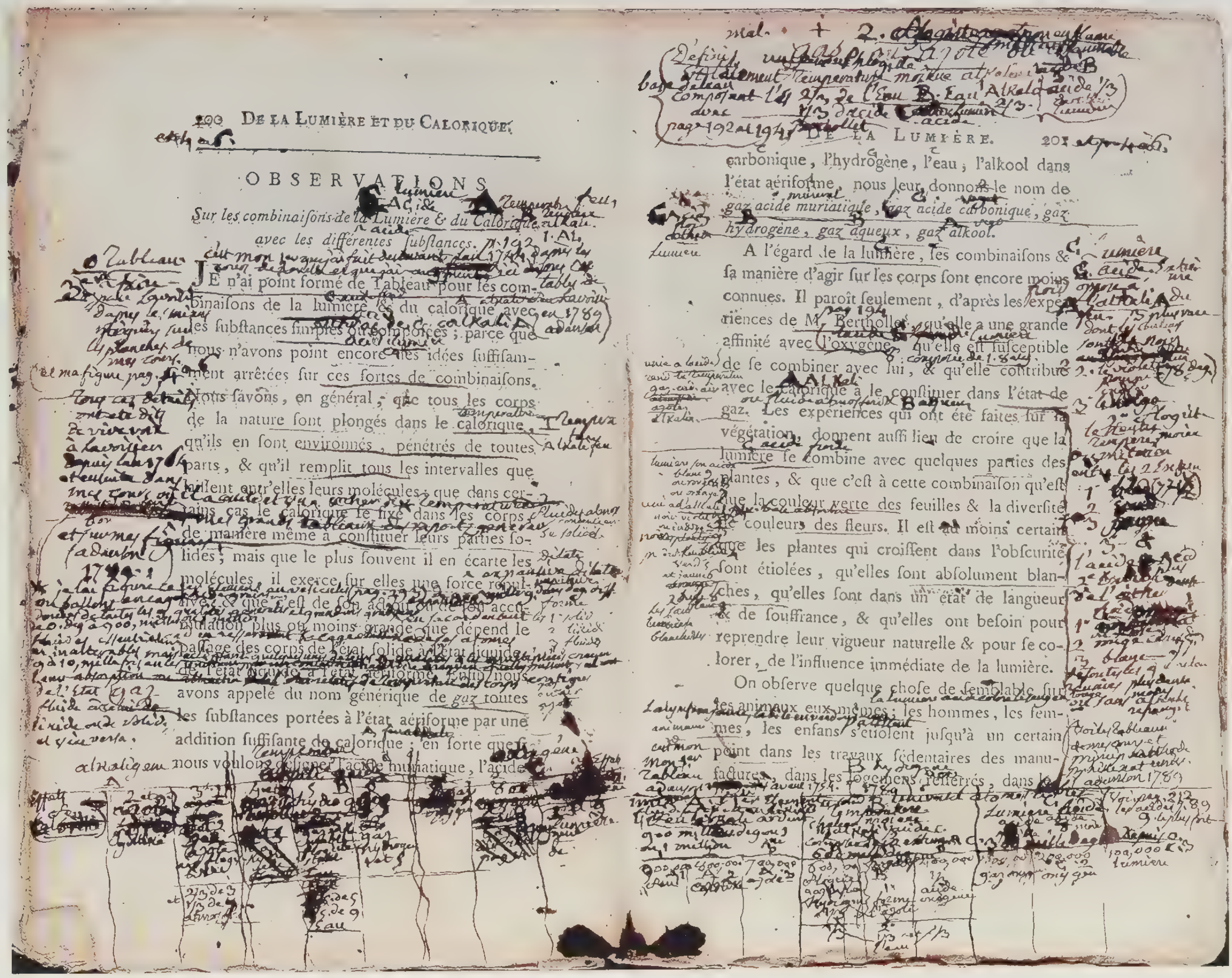
ɔ604

LAVOISIER, Antoine Laurent (1743-1794), Louis Bernard GUYTON DE MURVEAU (1737-1816), Claude BERNARD (1748-1822), & Antoine de FOURCROY (1755-1809). *Méthode de Nomenclature Chimique proposée par MM. de Morveau, Lavoisier, Bertholet & de Fourcroy*. Paris: Cuchet, 1787.

8° (197 x 122 mm). Printed folding table by Fourcroy, and 6 folding engraved tables. (Very light foxing to a few text pages.) Contemporary quarter calf gilt, magenta paste paper boards. *Provenance*: M. Jean DeBry (bookplate).

FIRST EDITION, FIRST ISSUE. Although the new chemical nomenclature had at first been developed by de Morveau before his conversion to the anti-phlogiston theory, it was used by Lavoisier as a means of propagating his new chemistry. The work lists 55 known elements in a series of tables, introducing many new terms which have remained in standard use. Duveen, p. 340. Duveen & Klickstein 126. Norman 1291.

Estimate: $800-1,200



200 DE LA LUMIÈRE ET DU CALORIQUE.

OBSERVATIONS

Sur les combinaiſons de la Lumière & du Calorique avec les différentes ſubſtances.

JE n'ai point formé de Tableau pour les combinaiſons de la lumière & du calorique avec les ſubſtances ſimples ou compoſées ; parce que nous n'avons point encore les idées ſuffiſamment arrêtées ſur ces ſortes de combinaiſons. Nous ſavons, en général, que tous les corps de la nature ſont plongés dans le calorique, qu'ils en ſont environnés, pénétrés de toutes parts, & qu'il remplit tous les intervalles que laiſſent entr'elles leurs molécules ; que dans certains cas le calorique ſe fixe dans les corps, de manière même à conſtituer leurs parties ſolides ; mais que le plus ſouvent il en écarte les molécules, il exerce ſur elles une force répulſive, & que c'eſt de ſon action ou de ſon accumulation plus ou moins grande que dépend le paſſage des corps de l'état ſolide à l'état liquide, de l'état liquide à l'état aériforme. Enfin nous avons appelé du nom générique de *gaz* toutes les ſubſtances portées à l'état aériforme par une addition ſuffiſante de calorique ; en ſorte que ſi nous voulons déſigner l'acide muriatique, l'acide

DE LA LUMIÈRE. 201

carbonique, l'hydrogène, l'eau, l'alkool dans l'état aériforme, nous leur donnons le nom de *gaz acide muriatique, gaz acide carbonique, gaz hydrogène, gaz aqueux, gaz alkool.*

A l'égard de la lumière, ſes combinaiſons & ſa manière d'agir ſur les corps ſont encore moins connues. Il paroît ſeulement, d'après les expériences de M. Berthollet, qu'elle a une grande affinité avec l'oxygène, qu'elle eſt ſuſceptible de ſe combiner avec lui, & qu'elle contribue avec le calorique à le conſtituer dans l'état de gaz. Les expériences qui ont été faites ſur la végétation, donnent auſſi lieu de croire que la lumière ſe combine avec quelques parties des plantes, & que c'eſt à cette combinaiſon qu'eſt due la couleur verte des feuilles & la diverſité de couleurs des fleurs. Il eſt au moins certain que les plantes qui croiſſent dans l'obſcurité ſont étiolées, qu'elles ſont abſolument blanches, qu'elles ſont dans un état de langueur & de ſouffrance, & qu'elles ont beſoin pour reprendre leur vigueur naturelle & pour ſe colorer, de l'influence immédiate de la lumière.

On obſerve quelque choſe de ſemblable ſur les animaux eux-mêmes : les hommes, les femmes, les enfans s'étiolent juſqu'à un certain point dans les travaux ſédentaires des manufactures, dans les logemens reſſerrés, dans les

605

LAVOISIER, Antoine-Laurent (1743-1794). *Traité élémentaire de chimie, présenté dans un ordre nouveau et d'après les découvertes modernes.* Paris: Chardon for Cuchet, 1789.

2 volumes, 8° (213 x 135 mm). Half-titles, 2-page errata at end, 2 letterpress folding tables in vol. I, 13 finely engraved folding plates by and after the author's wife, Marie Anne Pierrette Paulze Lavoisier, woodcut head- and tailpieces by Papillon. (Small tear to Ss1 [vol. II], 2 or 3 marginal tears, marginal staining to the folding plates, occasional marginal soiling, some light foxing.) Original pastepaper wrappers, uncut, traces of ink lettering on spines (both volumes loose in stitching, vol. II broken, backstrips torn, vol. II backstrip defective); folding morocco-backed chemise and slipcase by René Aussourd.

Provenance: MICHEL ADANSON (1727-1806), botanist (presentation copy from the author according to inscriptions by Adanson on both titles, both signed and dated 1789, his annotations throughout, later typographic book labels, "Des archives de Michel Adanson"); Denis I. Duveen (b. 1910) (bookplate inside chemise).

PRESENTATION COPY OF THE FIRST EDITION, second issue, COPIOUSLY ANNOTATED THROUGHOUT BY THE BOTANIST MICHEL ADANSON AT THE AUTHOR'S REQUEST. The "culmination of Lavoisier's achievement" (DSB), the *Traité de chimie* swept away the last remnants of alchemy, did away with the phlogiston theory that had hindered the progress of chemistry in the 18th-century, and laid the foundation for modern chemistry. "Neither a general reference work nor a technical monograph, this small work was a succinct exposition of Lavoisier's discoveries (and those of his disciples) and an introduction to the new way of approaching chemistry" (DSB). In

continued

it Lavoisier set forth his major contributions to chemistry: He established the concept of the conservation of matter, by proving that compound bodies represent the combined weight of the simple substances of which they are composed. He summarized and refined the work begun in his *Méthode de nomenclature chimique* (1787), reforming chemical nomenclature, introducing the modern definition of elements and compounds, and reducing his earlier list of 55 elements to 33, which are still recognized today. Finally, he showed combustion and rusting to be the result of chemical combinations with oxygen, in the process overthrowing the phlogiston theory. His extensive use of the chemical balance furthermore established the necessity of accurate measurements for chemical researches.

The illustrations for this edition were conceived and executed by Lavoisier's wife, a skilled painter and engraver who had studied under Louis David, and who collaborated with her husband in his scientific experiments and researches. The second issue contains tables and several extracts from the registers of the Académie des Sciences and other learned societies, not included in the single-volume first or trial issue, of which only two copies are known.

THIS EXCEPTIONAL COPY WAS CAREFULLY STUDIED AND CLOSELY ANNOTATED BY THE BOTANIST MICHEL ADANSON, AT THE AUTHOR'S EXPRESS REQUEST. Adanson, a brilliant scientist and *philosophe* who "in many ways played a hidden role in the development of science" (DSB), was a close colleague of Lavoisier's at the *Académie des Sciences*. In his long inscription on the title-page of volume I (which includes a brief sketch of his own career), Adanson describes Lavoisier's request: "Donné par mon cher collègue Lavoisier qui me pria instament de le lire et de lui en rendre mon jugement surtout sur sa methode 1° de Division des substances, 2° de Nomenclature" [etc.]... je lui ai fait les remarques les plus essentielles que j'ai fixees sur cet exemplaire". His annotations, which are in places so dense as to render the printed text illegible, include corrections, remarks, tables, underlinings, and a neat drawing of a copper alambic on G1r. Lavoisier may have hoped to incorporate Adanson's suggestions in a later edition, but they remain unpublished.

Dibner *Heralds of Science* 43; Duveen and Klickstein 154; Grolier/Horblit 64; PMM 238; Wellcome III, p. 460; Norman 1295.

(2)

Estimate: $10,000-15,000

606

[LAVOISIER, ANTOINE Laurent (1743-1794)]. Proof impressions of seven engraved plates by Yves Le Gouaz after Fossier, used to illustrate Lavoisier's memoir "Observations générales, sur les couches modernes horizontales, qui ont été dépoosées par la mer, et sur les conséquences qu'on peut tirer de leayrs dispositions, relativement à l'ancienneté du globe terrestre," published in the *Mémoirs de l'Académie Royale des Sciences* (1789), pp. 351-371. 7 engraved sheets (258 x 361 mm). (Some minor foxing.) Unbound, in cloth case. *Provenance*: The author's proof copies (each plate SIGNED IN INK BY LAVOISIER and Gabriel de Bory, Vice-Secretary of the Academy; plates II and II inscribed by Lavoisier "Bon à tirer après les corrections"); Denis I. Duveen (bookplate on cloth folding case).

"Lavoisier ... if he had not given himself up to chemistry, might have become one of the most illustrious among the founders of geology" (A. Geiokie, *The Founders of Geology*, London: 1897). This memoir and the geological atlas of France (see lot 602), were Lavoisier's only contributions to geology. The memoir draws a distinction between littoral and pelagic deposits, and the seven large plates gave the first outline of a correct classification of the tertiary deposits of the Paris region. Duveen & Klickstein 101; Norman 1296.

Estimate: $1,000-1,500

0607

[LAVOISIER, Antoine-Laurent (1743-1794)]. *Mémoires de Chimie.* [Paris, 1803(?)].

3 volumes in 2, 8° (213 x 135 mm). 2 folding engraved plates laid in at the back of Vol. 1. (Very light foxing; lower corner torn away from I:E4, not affecting text.) Original blue wrappers, uncut, one quire partly unopened; half red morocco slipcases.

FIRST EDITION. Lavoisier's work on an eight-volume edition of his memoirs was interrupted by his imprisonment and subsequent execution. His widow retained what she could of his notes (most of the first volume, all of the second and a small part of the fourth volume), and later had them privately printed and distributed to eminent institutions and experts in the field. The edition comprises 39 separate memoirs, 29 by Lavoisier (including his claim, in the fifth memoir of Vol. 2, to have discovered the theory of oxidation, for which his wife was most concerned that he should receive credit), and the remainder by Brisson, Fourcroy, Laplace, Macquart, Séguin and Vauquel. FIRST EDITION OF THIS VERY RARE WORK. Duveen & Klickstein 186; Norman 1297.

(2)

Estimate: $2,000-3,000

0608

[LAVOISIER, Antoine Laurent (1743-1794), and others]. *Extrait des registres de l'académie royale des sciences. Du 22 Novembre 1786. Rapport des Commissaires chargés ... de l'examen du projet d'un nouvel Hôtel-Dieu.* Paris: Imprimerie Royale, 1786. 4° (250 x 193 mm). Folding printed table. Stabbed as issued, original blue wrappers, (losses to spine). FIRST EDITION. Lavoisier was a member of an Académie comittee appointed to report on the terrible and insanitary conditions in Paris hospitals, and particularly the Hôtel-Dieu, with a view to replacing it with a new building on the Isle des Cygnes. The committee concluded that four smaller hospitals would be more efficient than a single large one, and in 1787, Louis XVI ordered their construction. Duveen & Klickstein 239; Norman 1289. — *Extrait des registres de l'académie royale des sciences. Du 22 Novembre 1786. Rapport des Commissaires chargés ... de l'examen du projet d'un nouvel Hôtel-Dieu.* Paris: Moutard, 1787. 8° (194 x 123 mm). Folding printed table. Later marbled boards, gilt-lettered spine. *Provenance*: Montailoi (inscription on p.144). Second edition. Duveen & Klickstein 240; Norman 1290. — *Histoire de l'Académie Royale des Sciences ... Deuxième rapport des Commissaires chargés, par l'Académie, des Projets relatifs à l'établissement des quatre Hôpitaux.* 4° (250 x 195 mm). Later marbled wrappers. Second edition. Duveen & Klickstein 85; Norman 1292. [Bound with:] — *Troisième rapport des Commissaires chargés ... de l'examen des projets relatifs à l'établissement des quatre Hôpitaux.* Folding engraved plate of plan for a new hospital. Second edition. Duveen & Klickstein 86; Norman 1294. — *Extrait des registres de L'Académie Royale des Sciences. Du 12 Mars 1788. Troisième rapport des Commissaires chargés ... des Projets relatifs à l'établissement des quatre Hôpitaux.* Paris: Imprimerie Royale, 1788. 4° (270 x 213 mm). Stabbed as issued, uncut. Folding engraved plate of plan for a new hospital (slightly foxed). FIRST EDITION. Duveen & Klickstein 702; Norman 1293.

(4)

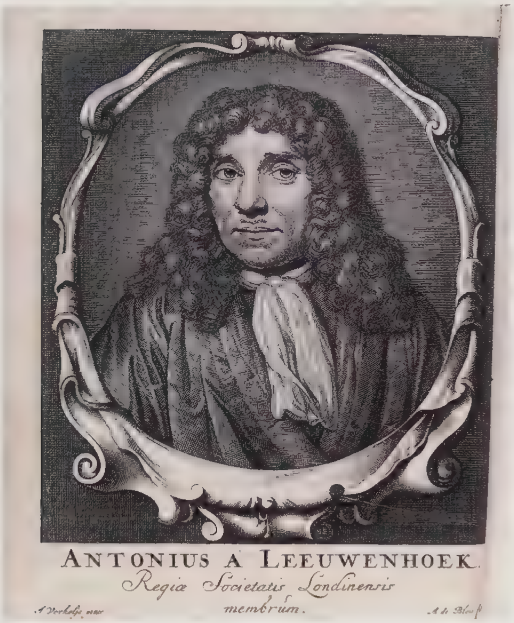
Estimate: $1,000-2,000

0609

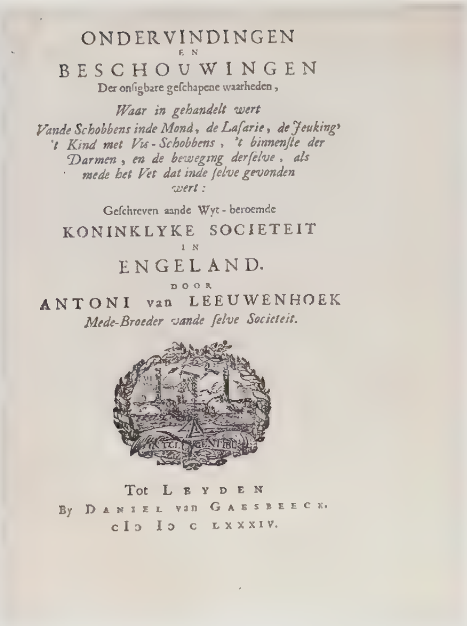
[LAVOISIER, Antoine Laurent (1743-1794)]. DUVEEN, Denis and Herbert KLICKSTEIN. *A Bibilography of the works of Antoine Laurent Lavoisier.* London: William Dawson & Sons, and E. Weil, 1954. 8° (262 x 179 mm). Half morocco gilt, with red leather spine label and marbled boards. *Provenance*: Kenneth Garth Huston (bookplate). FIRST EDITION, one of 25 copies printed on Glastonbury Antique Laid paper. Norman 1298. — DUVEEN, Denis. *Supplement to a bibliography of the works of Antoine Laurent Lavoisier.* London: Dawsons of Pall Mall, 1965. 8° (262 x 179 mm). Half morocco gilt, with red leather spine label and marbled boards. *Provenance*: Kenneth Garth Huston (bookplate). FIRST EDITION, one of 25 copies printed on Glastonbury Antique Laid paper. Norman 1298. — DUVEEN, Denis. *Supplement to a bibliography of the works of Antoine Laurent Lavoisier.* London: Dawsons of Pall Mall, 1965. 8° (261 x 177 mm). Half morocco, gilt-lettered spine, cloth boards, by Sangorski and Sutcliffe. *Provenance*: PRESENTATION COPY FROM DUVEEN TO KLICKSTEIN (inscription). FIRST EDITION, one of two copies on handmade paper. Norman 1299.

(3)

Estimate: $800-1,200



611


ONDERVINDINGEN
EN
BESCHOUWINGEN
Der onſigbare geſchapene waarheden,

Waar in gehandelt wert
Vande Schobbens inde Mond, de Laſarie, de Jeuking,
't Kind met Vis-Schobbens, 't binnenſte der
Darmen, en de beweging derſelve, als
mede het Vet dat inde ſelve gevonden
wert:

Geſchreven aande Wyt-beroemde
KONINKLYKE SOCIETEIT
IN
ENGELAND.
DOOR
ANTONI van LEEUWENHOEK
Mede-Broeder vande ſelve Societeit.

Tot LEYDEN
By DANIEL van GAESBEECK.
cIↄ Iↄ c LXXXIV.

610

610

LEEUWENHOEK, Antoni van (1632-1723). *Ondervingen en beschouwingen der onsigtbare geschapene waarheden, vervat in verscheydene Brieven, geschreven aan de... Koninklijke Societeit in Engeland.* Leiden: Daniel van Gaesbeeck, 1684.

4° (200 x 156 mm). 10 engraved text illustrations. Modern vellum; folding cloth case.

FIRST EDITION of letters 32 and 33, and the first separately published edition of any of Leeuwenhoek's letters. "Antoni van Leeuwenhoek, who lacked formal university training in the sciences, philosophy, or languages, surely ranks among the greatest autodidacts in the history of science and medicine. Born into a comfortable middle-class Dutch family, he passed his long life almost entirely in Delft. There he had two careers: the first as a civil servant, the second as a microscopist of international renown... Although a man of limited theoretical skills, he was a consummately acute observer, and for fifty years he patiently and painstakingly documented the hidden realms of nature in a way no one had done before him" (Grolier *Medicine*). A skilled lens grinder, Leeuwenhoek produced a total of about 550 lenses during his lifetime, perfecting the microscope sufficiently to enable him to make unprecedented observations of sub-visible life. Although his ignorance of foreign languages forced him to rely on Dutch authors and Dutch translations of standard scientific works, he was aided and encouraged in his work by friends such as Constantin Huygens and Reinier de Graaf. One beneficial consequence of his relative isolation from the main currents of contemporary scientific scholarship was that "he was thus able to work with full independence and to make a sharp distinction between the empiricism and speculation that marked the sometimes chaotic world of seventeenth-century science. Leeuwenhoek apparently regarded speculation as an academic occupation... He usually set out his observations fully, as facts, and only then in a separate section, allowed himself to wonder what those facts might mean."

While his hundreds of observations included inorganic as well as organic structures, Leeuwenhoek's major contributions were in the field of microbiology: "Early in his career as a scientist, he observed what he described as animalcules or 'little animals' [*dierkens*] in water, and from then on he described in considerable detail a spectrum of microorganisms never before detected, including bacteria, protozoa, and rotifers" (Grolier *Medicine*). He devised for his observations a system of micrometry, utilizing as standards a grain of coarse sand, a hair from his beard, and two micro-organisms. One of Leeuwenhoek's lifelong concerns and the area of his work that most caught the attention of his contemporaries, was the study of sexual reproduction. His work includes the first full descriptions of spermatozoa, which he considered to be "little men," the origin of all new animal life, regarding the egg as primarily a source of nutrients (in opposition to Harvey, who took the contrary view). He also investigated the development of other mammals as well that of birds, fish, reptiles and mollusks, and the cumulative effect of his work was to provide evidence aginst the then prevalent theory of spontaneous generation. He independently discovered and correctly identified blood corpuscles, and, attempting to draw an analogy between animal and plant systems, minutely analyzed the systems of nutrient transport in plants.Although he developed no general theory, Leeuwenhoek's work raised crucial questions and helped establish the microsope as an indispensable tool for medical and biological research.

Leeuwenhoek's scientific communications consisted exclusively of letters to fellow scientists, the majority addressed to the Royal Society in London. 165 were published, in two chronological sequences, numbered 28-146 and I-XLIV (letters 1-27 were not published separately, although abstracts appeared in the *Philosophical transactions*). 120 letters were abstracted in English or Latin in volumes VIII-XXXII of the *Transactions* (1673-1723, see lot 716). "Leeuwenhoek himself did not publish his work until 1684, when he brought out some of his letters in Dutch [starting with letters 32 and 33]; from 1685 onward he also published Latin translations [not his own, as he had no knowledge of Latin]. He initially edited, reprinted, and reissued some of his letters separately or in groups of two or three, a practice that has resulted in some bibliograpical confusion. From 1687 he adopted a more systematic course of publication..." (DSB). All of the letters are illustrated with engravings; the artist is unknown. The Norman collection includes ALL OF THE PUBLISHED LETTERS OF THE FIRST SERIES, MOST IN THEIR DUTCH OR LATIN FIRST EDITIONS, as described in this and the following lot. Dobell 1; cf. Grolier *Medicine* 37; cf. PMM 166; Waller 10887.4; Wellcome III, p. 476; Norman 1301.

[*Bound with*:] *Ondervindingen...waar in gehandeld werd vande eyerstok, ende derselver ingebeelde eyeren, dat een mensch uyt een dierken voort komt*. Leiden: van Gaesbeeck, 1684. 7 engravings. FIRST EDITION of letters 37 and 39, the latter, addressed to François Aston and dated 12 September 1683, containing Leeuwenhoek's famous description and illustration of bacteria scraped from his own teeth. "On the teeth he found certain micro-organisms and he gave the first illustrations of various kinds of bacteria (on 17 [i.e., 12] September, 1683), without realizing the special nature of this discovery and without connecting it with morbid infections; for this the world had to wait another one hundred and fifty years, in particular for the work of Pasteur" (PMM 166). Dobell 2; Waller 10887.2; Wellcome III. p. 476; Norman 1303. - [*Bound with*:] *Ondervingen... waar in gehandelt wert vande schobbens inde mond, de lasarie, jeuking' 't kind met vis-schibbens, 't binnenste der darmen, en de bewegung derselve*. Leiden: Gaesbeeck, 1684. 6 engravings. FIRST EDITION, letter 40. Dobell 3; Waller 10887.5; Wellcome III. p. 476; Norman 1305. - [*Bound with*:] *Ondervindingen... over het maaksel van't Humor Cristallinus*. Leiden: van Gaesbeeck, 1684. 5 engravings. FIRST EDITION, letter 41. Dobell 4; Waller 10887.6; Wellcome III, p. 476; Norman 1306. (Occasional dampstaining throughout the volume.)

[*With*:]

Ondervindingen...vande eyerstok. Leiden: van Gaesbeeck, 1684. 4° (190 x 138 mm). 4 engravings. Modern morocco. Letter 37 only; the typesetting identical to Dobell 2 but without the last 10 spearately signed and paginated leaves containing letter 39. The Wellcome Library has two such copies. Wellcome III, p. 476; Norman 1304. - [*Bound with*:] *Ontdekkingen en Ontledingen van sout-figuren...van levendige dierkens in de mannelyke saden*. Leiden: Cornelis Boutesteyn, 1685. One folding engraved plate, 19 engravings in the text. FIRST EDITION of letters 44 and 45, the latter containing some of Leeuwenhoek's observations of spermatozoa. Dobell 6; Waller 10887.7; Wellcome III, p. 476; Norman 1307.

[*With*:]

A collection of Dutch editions of Leeuwenhoek's letters, bound in 6 (of 7 or more) volumes, 4° (195 x 156 mm), contemporary calf, spines gilt, the volumes numbered 2-7 on spines. (Occasional dampstaining throughout.) Contents as follows (listed in order of binding):

[Volume 2:]

1) *Ontledingen... van levende dierkens de teel-deelen van verscheyde dieren, vogelen en visschen; van het hout... van hair, vlees en vis*. Leiden: Cornelis Boutesteyn, 1686. Additional engraved title by Romeyn de Hooghe, 3 engraved plates of which 2 large and folding, 7 engravings in text. FIRST EDITION, letters 28-31 and 34-36. Dobell 8; Waller 10887.1; Wellcome III, p. 476; Norman 1309.

2) *Ontledingen... van de onsigtbare verborgentheden; vervat in verscheide brieven*. Leiden: C. Boutesteyn, 1691. 18 engravings. Second Dutch edition, letters 38, 42 and 43. Dobell 5a (not

seen by him); Waller 10887.3; Wellcome III, p. 476; Norman 1313.

[Volume 3:]

3) [Duplicate copy of Norman 1307 (Dobell 6)].

4) *Ontledingen... van het begin der planten in de zaden van boomen.* Leiden: Boutesteyn, 1685. One folding engraved plate, 25 engravings in text. FIRST EDITION, letters 46 and 47. Dobell 7; Waller 10887.8; Wellcome III, p. 476; Norman 1308.

5) *Ontledingen... van de cinnaber naturalis.* Leiden: Boutesteyn, 1686. One folding plate, 19 engravings in text. FIRST EDITION, letters 48-52. Dobell 9; Waller 10887.9; Weelcome III, p. 476; Norman 1310.

[Volume 4:]

6) *Vervolg der brieven, gèschreven aan de... Koninglijke Soceiteit in Londen.* Leiden: Boutesteyn, 1688. 8 engraved plates (one folding), 4 engravings in text. (Lacks engraved portrait, this volume more severely dampstained with some mildew in lower margins.) Second edition, letters 53-60 (first published in 1687), with a register of letters 28-52. Dobell 10a; Waller 10894 (with second and third parts [Dobell 12-13], published later [see nos. 11 and 12 below]); Wellcome III, p. 476; Norman 1311.

7) [Duplicate copy of Norman 1303 (Dobell 2)].

8) *Ondervindingen en beschouwingen der onsigtbare geschapene waarheden.* Delft: Henrik van Kroonevelt, 1694. 15 engravings. Second edition, letters 32, 33 and 39. Dobell [Schierbeek] 1a; Wellcome III, p. 476; Norman 1302.

9-10) [Duplicate copies of Norman 1306 and 1305 (Dobell 4 and 3)].

[Volume 5:]

11) *Naturs verborgentheden ontdekt: zijnde een tweede vervolg der brieven, geschreven aan de Koninglijke Societeit tot Londen.* Delft: Andries Voorstad, 1689. Engraved frontispiece portrait by Abraham de Blois after Jan Verkolje (first state, with caption in Dutch), 6 plates of which 3 folding, 2 engravings in text. (Some mildew spots, occasional browning.) FIRST EDITION, letters 61-67, consisting of the second part of the *Verfolg der brieven*, 1688 (Dobell 10a, Norman 1311), the pagination continuing from part 1. Dobell 12; Waller 10894; Wellcome III, pp. 476-77; Norman 1312.

[Volume 6:]

12) *Derde Verfolg der brieven.* Delft: van Kroonevelt, 1693. 6 engraved plates of which 1 double-page and 1 folding, 2 engravings in the text. FIRST EDITION, letters 68-75, part 3 of the *Verfolg...*, the pagination continuing from the previous parts. Dobell 13; Waller 10894; Wellcome III, p. 477; Norman 1314.

[Volume 7:]

13) *Vierde Verfolg der brieven.* Delft: van Kroonevelt, 1694. 6 engraved plates (3 folding). FIRST EDITION, letters 76-83, part 4 of the *Verfolg...* the pagination continuing from the previous parts. Dobell 14; Waller 10894a; Wellcome III, p. 477; Norman 1315.

(8)

Estimate: $6,000-8,000

611

LEEUWENHOEK, Antoni van (1632-1723). *Anatomia et contemplatio nonnullorum naturae invisibilium secretorum comprehensorum epistolis... ad... Societatis Regiae Londinensis Collegium.* Leiden: Cornelius Boutesteyn, 1685. 4° (193 x 151 mm). 18 engraved illustrations in text. (Dampstaining.) Contemporary mottled calf, sides with unidentified gilt arms (accolé coats-of-arms beneath an imperial crown), spine gilt panelled with repeated crowned monogram CT or CF (extremities worn). First Latin edition, letters 43, 42, and 38, the first of Leeuwenhoek's letters to appear in Latin translation, published the same year as the Dutch edition. VERY RARE. Dobell stated that the only copy he had seen was his own. Dobell 21; Waller 10875; Norman 1316.

[*With*]:

Arcana naturae detecta. Delft: Henrik van Krooneveld, 1695. 4° (193 x 155 mm). Engraved portrait frontispiece by Abraham de Blois after Jan Verkolje, additional engraved title, 27 engraved plates of which 15 folding, engraved illustrations in text. Contemporary vellum. *Provenance*: Count Antoni van Pergen (bookplate and shelfmark label). FIRST EDITION of letters 84-92, first Latin edition of letters 32-33, 37, 39, 40-41, and 61-83. Dobell 25; Nissen *ZBI* 2417; Waller 10877; Wellcome III, p. 477; Norman 1319.

[*With*]:

Arcana naturae, ope & beneficio... microscopiorum detecta. Leiden: Cornelis Boutesteyn, "1808" [1708]. 4° (194 x 156 mm). Additional engraved title by Romeyn de Hooghe (dated 1696), 11 engraved plates of which 5 folding, engraved illustrations in text. Contemporary vellum. *Provenance*: Count Antoni van Pergen (bookplate and shelfmark label). Third edition of the *Anatomia seu interiora rerum* (1687), which itself is the expanded second edition of the *Anatomia et contemplatio nonnullorum naturae* [see above]; containing letters 43, 42 and 38, 28-31, 34-36, 46-48, 44-45 and 48-52. Dobell 25b (misdescribing it as the 3rd edition of the *Arcana naturae* of 1688); Wellcome III, p. 477; Norman 1320. - [*Bound with*]: *Continuatio arcanorum naturae detectorum.* Delft: Henrik van Kroonevelt, 1697. 7 engraved plates, one folding. First Latin edition, first issue. A continuation of *Arcana naturae detecta* (1695), containing letters 93-107. Dobell 26; Waller 10880; Wellcome III, p. 477; Norman 1321. - [*Bound with*]: *Continuatio epistolarum, datarum...ad Regiam Societatem Londinensem.* Leiden: Theodore Haak and Johann Arnold Langerack, 1715. 10 engraved plates including 2 folding. Third Latin edition, including indexes to *Arcana*, evidently reprinted from the 1689 edition. Dobell 24b; Waller 10884; Wellcome III, p. 477; Norman 1318.

[*With*]:

Epistolae ad Societatem Regiam Anglicam, et alois illustres viros seu continuatio mirandorum arcanorum naturae detectorum. Leiden: Johann Arnold Langerack, 1719. 4° (193 x 158 mm). Engraved portrait frontispiece by Abraham Blois after Jan Verkolje, engraved title vignette and 25 engraved plates including 2 folding. (Foxing.) Contemporary vellum. First Latin edition of *Sevende verfolg der brieven* (1702), containing letters 108-146. Dobell 27; Waller 10885; Wellcome III, p. 477; Norman 1323. - [*Bound with*]: *Continuatio arcanorum naturae detectorum.* Leiden: Johann Arnold Langerack, 1722. 7 engraved plates, one folding. First Latin edition, second issue, with a new title and 8-page index. Dobell 26a (calling it a second edition); Waller 10881; Wellcome III, p. 477; Norman 1322.

[*With*]:

Continuatio epistolarum, datarum ad ... Regiam Societatem Londinensem. Leiden: Cornelis Boutesteyn, 1689. 4° (194 x 158 mm). 9 engraved plates (2 folding), engraved illustrations in text. Modern half morocco gilt. *Provenance*: H. Thompson (19th-century signature). First Latin edition, letters 53-60 and indices for letters 28-31, 34-36, 38, 42-52 and 53-60. Dobell 24; Waller 10882; Wellcome III, p. 477; Norman 1317. - [*Bound after*:] [Duplicate copy of Norman 1320 (Dobell 25b)].

(5)

Estimate: $3,000-4,000

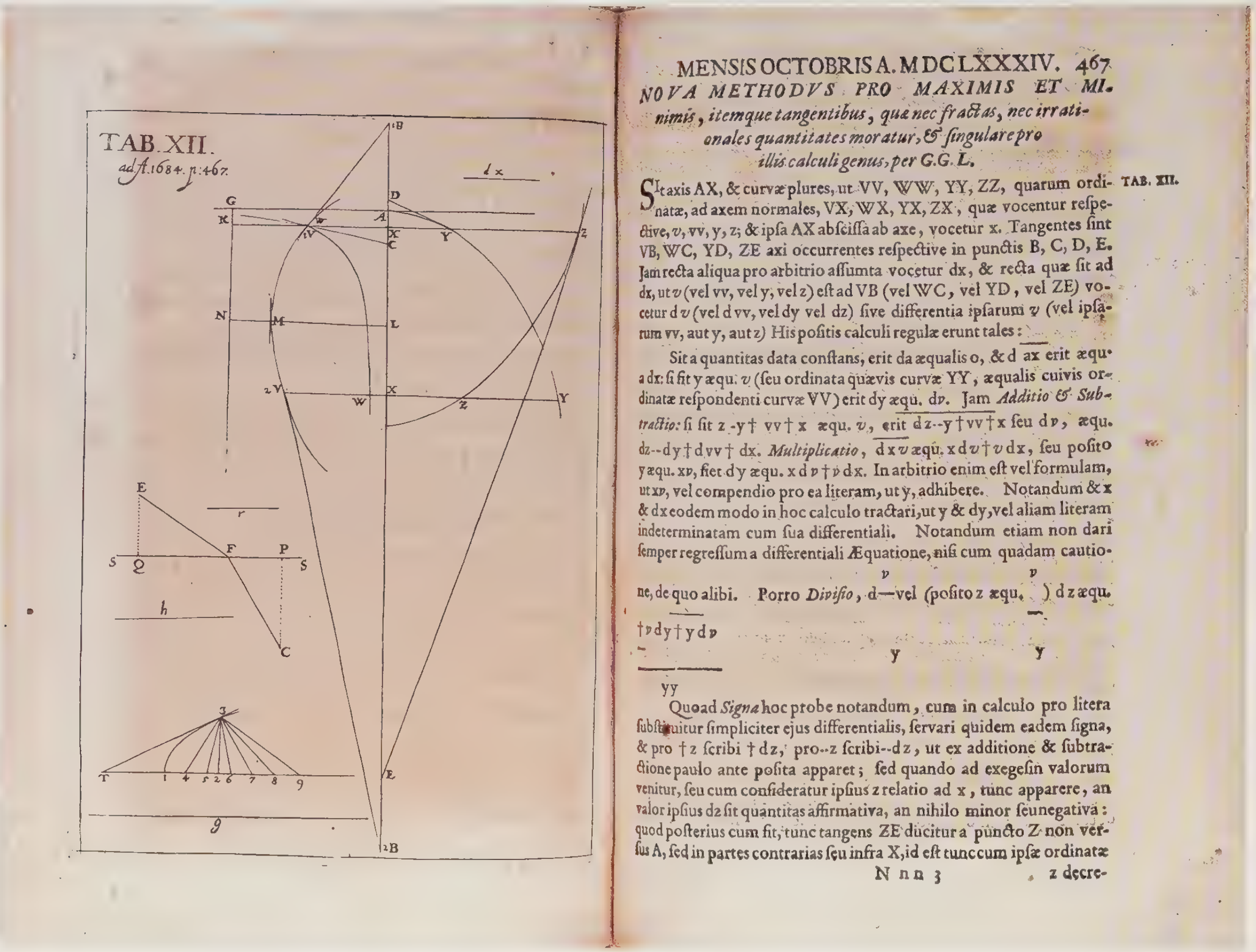
612

LEGENDRE, Adrien Marie (1752-1833). *Essai sur la théorie des nombres.* Paris: Duprat, An VI [1798].

4° (263 x 197 mm). Tables in text. Contemporary calf gilt (rebacked, preserving original spine).

FIRST EDITION. Contains Legendre's principal contribution to number theory, an improved exposition of his law of reciprocity of quadratic residues. "The *Essai* also introduced the symbol $(\frac{a}{p})$, still used to express the law of reciprocity; and gave an outline of Legendre's law of the distribution of prime numbers, which he improved in the second edition" (Norman). Thornton-Tully 148; Norman 1325.

Estimate: $800-1,200


TAB. XII.
ad A.1684. p.467.
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MENSIS OCTOBRIS A. MDCLXXXIV. 467

NOVA METHODVS PRO MAXIMIS ET MInimis, itemque tangentibus, quæ nec fractas, nec irrationales quantitates moratur, & ſingulare pro illis calculi genus, per G.G.L.

TAB. XII.

SIt axis AX, & curvæ plures, ut VV, WW, YY, ZZ, quarum ordinatæ, ad axem normales, VX, WX, YX, ZX, quæ vocentur reſpective, *v*, vv, y, z; & ipſa AX abſciſſa ab axe, vocetur x. Tangentes ſint VB, WC, YD, ZE axi occurrentes reſpective in punctis B, C, D, E. Jam recta aliqua pro arbitrio aſſumta vocetur dx, & recta quæ ſit ad dx, ut *v* (vel vv, vel y, vel z) eſt ad VB (vel WC, vel YD, vel ZE) vocetur d*v* (vel d vv, vel dy vel dz) ſive differentia ipſarum *v* (vel ipſarum vv, aut y, aut z) His poſitis calculi regulæ erunt tales:

Sit a quantitas data conſtans, erit da æqualis o, & d ax erit æqu. a dx: ſi ſit y æqu. *v* (ſeu ordinata quævis curvæ YY, æqualis cuivis ordinatæ reſpondenti curvæ VV) erit dy æqu. d*v*. Jam *Additio & Subtractio:* ſi ſit z -y † vv † x æqu. *v*, erit $d\overline{z - y \dagger vv \dagger x}$ ſeu d*v*, æqu. dz - dy † dvv † dx. *Multiplicatio*, $d\overline{x v}$ æqu. x d*v* † *v* dx, ſeu poſito y æqu. x*v*, fiet dy æqu. x d*v* † *v* dx. In arbitrio enim eſt vel formulam, ut x*v*, vel compendio pro ea literam, ut y, adhibere. Notandum & x & dx eodem modo in hoc calculo tractari, ut y & dy, vel aliam literam indeterminatam cum ſua differentiali. Notandum etiam non dari ſemper regreſſum a differentiali Æquatione, niſi cum quadam cautione, de quo alibi. Porro *Diviſio*, $d\frac{v}{y}$ vel (poſito z æqu. $\frac{v}{y}$) dz æqu. $\frac{\dagger v\,dy \dagger y\,dv}{yy}$

Quoad *Signa* hoc probe notandum, cum in calculo pro litera ſubſtituitur ſimpliciter ejus differentialis, ſervari quidem eadem ſigna, & pro † z ſcribi † dz, pro - z ſcribi - dz, ut ex additione & ſubtractione paulo ante poſita apparet; ſed quando ad exegeſin valorum venitur, ſeu cum conſideratur ipſius z relatio ad x, tunc apparere, an valor ipſius dz ſit quantitas affirmativa, an nihilo minor ſeu negativa: quod poſterius cum fit, tunc tangens ZE ducitur a puncto Z non verſus A, ſed in partes contrarias ſeu infra X, id eſt tunc cum ipſæ ordinatæ

N n n 3 z decre-

613

LEIBNITZ, Gottfried Wilhelm (1646-1716). "Nova methodus pro maximis et minimis, itemque tangentibus, quae nec fractas, nec irrationales quantitates moratur, & singulare pro illis calculi genus." In: *Acta eruditorum.* 1684, pp. 467-473. Leipzig: C. Günther for J. Gross and J.F. Gleditsch, 1684.

4° (202 x 149 mm). Engraved plate. Contemporary vellum gilt, spine with gilt lettered morocco label. *Provenance:* Duc de Hytar (bookplate); Federico Gomez de la Mata (bookplate and inkstamp).

FIRST EDITION OF THE FIRST ANNOUNCEMENT OF THE DIFFERENTIAL CALCULUS. "The infinitesimal calculus originated in the 17th century with the researches of Kepler, Cavalieri, Torricelli, Fermat and Barrow, but the two independent inventors of the subject, as we understand it today, were Newton and Leibnitz. The subsequent controversy in the early part of the 18th century as to the priority of their discoveries—one of the most notorious disputes in the history of science—led to an unfortunate divorce of the English from the Continental mathematics that lasted until the end of the first quarter of the 19th century... With the calculus a new era began in mathematics, and the development of mathematical physics since the 17th century would not have been possible without the aid of this powerful technique" (PMM). Dibner *Heralds of Science* 109; Grolier/Horblit 66a; PMM 160; Norman 1326.

Estimate: $3,000-4,000

614

LEIBNITZ, Gottfried Wilhelm (1646-1716). *Protogaea sive de prima facie telluris et antiquissimae historiae vestigiis in ipsis naturae monumentis dissertatio.* Edited by Christian Ludwig Scheidt. Göttingen, for J.W. Schmid, 1749.

4° (208 x 170 mm). Title in red and black, engraved title vignette and 12 engraved folding plates, plates VI, VII, and XII by Nicolaus Seeländer (occasional light staining, tiny hole in F3.) Contemporary boards (rebacked in antique-style leather); modern cloth folding case. FIRST EDITION. A work on the formation of the earth's crust, the most important part of which was the postulation of a sequence of the strata containing fossils, with the simultaenous diminution of the ocean by evaporation. Hoover 521; Wellcome III, p. 482; Norman 1328.

Estimate: $800-1,200

615

LEMERY, Nicolas (1645-1715). *Cours de chymie contenant la maniere de faire les operations qui sont en usage dans la medecine, par une methode facile.* Paris: for the author, 1675.

12° (147 x 81 mm). (Some dampstaining, a few small holes at inner margin on title-page.) 17th-century French mottled calf, spine gilt (head of spine chipped). *Provenance*: Bernard de Noblet, Chevalier, Comte de Chenelette and Lieutenant des Mareschaux de France (engraved armorial bookplate).

RARE FIRST EDITION OF LEMERY'S FAMOUS CHEMICAL TEXTBOOK. "Lemery's highly successful *Cours de chymie*, which served as the textbook to his popular courses on chemistry, brought French chemical teaching out of the quasi-mystical paracelsian tradition into the mainstream of Cartesian and atomistic natural philosophy" (Norman). It enjoyed unprecedented success and sold, as Fontenelle comments, like a work of romance or satire. Lemery's clear and entertaining presentation of chemistry in corpuscular-mechanist terms contributed to the works overwhelming popularity. It went through numerous editions, and was translated into all the major European languages. Partington III, pp. 28-41; Norman 1329.

Estimate: $2,000-3,000

616

LEUPOLD, Jacob (1674-1727). *Theatrum machinarum hydrotechnicarum. Schau-Platz der Wasser-Bau-Kunst...* Leipzig: Christoph Zunkel, 1724. 2° (244 x 378 mm.) Title in red and black, 51 engraved folding plates by Johann-Gottfried Krügner (light dampstaining to upper margin.) Half calf antique and marbeld boards. FIRST EDITION. The above is the second of a ten-volume series entitled *Theatrum machinarum,* each volume of which is complete in itself. Brunet III:1033; Norman 1339 — LEUPOLD. *Theatri machinarum hydraulicarum... Oder: Schau-Platz der Wasser-Künste...* Leipzig: Christoph Zunkel, 1724. First volume (only). 2° (353 x 230 mm). Title in red and black, 52 engraved folding plates by Creite (light browning, last 25 plates with cenral small tear.) Contemporary vellum, small hole in lower cover). FIRST EDITION. Norman 1340.

(2)

Estimate: $1,200-1,800

ɔ617

L'HOSPITAL, Guillaume François Antoine de (1661-1704). *Analyse des infiniment petits, pour l'intelligence des lignes courbes*. Paris: l'Imprimerie Royale, par les soins de Jean Anisson, 1696.

4° (250 x 181 mm). Title engraving of French royal arms, 11 numbered folding engraved plates, engraved allegorical head-pieces, one by Le Pautre, engraved tail-piece by G. Audran, engraved initials, woodcut tailpiece, one signed PLS (Pierre Le Sueur). Initial blank leaf present. (Quires M and O slightly darkened.) Contemporary vellum over pasteboard, covers panelled in blind with central blindstamped arabesque cartouche, red morocco lettering-piece on spine (covers slightly bowed).

FIRST EDITION OF THE FIRST TEXTBOOK OF THE DIFFERENTIAL CALCULUS. L'Hospital, a mathematical genius as well as a man of a "modest and generous" disposition ("two qualites that were not widespread among the mathematicians of his time" [DSB]), had been instructed in the calculus by Johann I Bernoulli in 1691. Although l'Hospital acknowledged the contributions of Bernoulli and Leibniz in his preface, which gives a short history of the development of the calculus in the preceding century, he also claimed credit for some work that Bernoulli considered his own, of which the latter complained after the author's death. "However, these foundations can be found, less explicitly, also in Leibniz, although Leibniz made it clear that he did not accept L'Hospital's Platonistic views on the reality of infinitely small and infinitely large quantities" (DSB). Whatever its precise sources, the importance of L'Hospital's work lay in its dissemination throughout Europe of the concepts and early development of the calculus, whose cause L'Hospital advanced as well through his many contacts; these included Christiaan Huygens, who is reputed to have learned the calculus from L'Hospital. A FINE COPY. Norman 1345.

Estimate: $2,000-3,000

ɔ618

LIEUTAUD, Joseph (1703-1780). *Essais anatomiques*. Paris: Pierre-Michel Huart, 1742.

8° (192 x 121 mm). 6 folding etched plates. (Some very minor pale spotting, some leaves lightly browned.) Contemporary French red morocco, spine gilt, edges gilt (some wear at corners, small tear at head of spine); cloth folding case. *Provenance*: early ownership inscription deleted on front endpaper; bookplate removed.

FIRST EDITION of this practical text on anatomy. "Pathological anatomy in France is said to begin with Lieutaud, physician to Kings Louis XV and XVI. This practical text of anatomy stresses the clinical implications of various structures and has been called the first surgical anatomy. Lieutaud is especially known for his descriptions of the heart and its cavities and the structure of the urinary bladder, as well as for numerous corrections of anatomical errors" (*Heirs of Hippocrates*). Garrison-Morton 396; *Heirs of Hippocrates* 863; Waller 5815; Wellcome III, p. 516; Norman 1352.

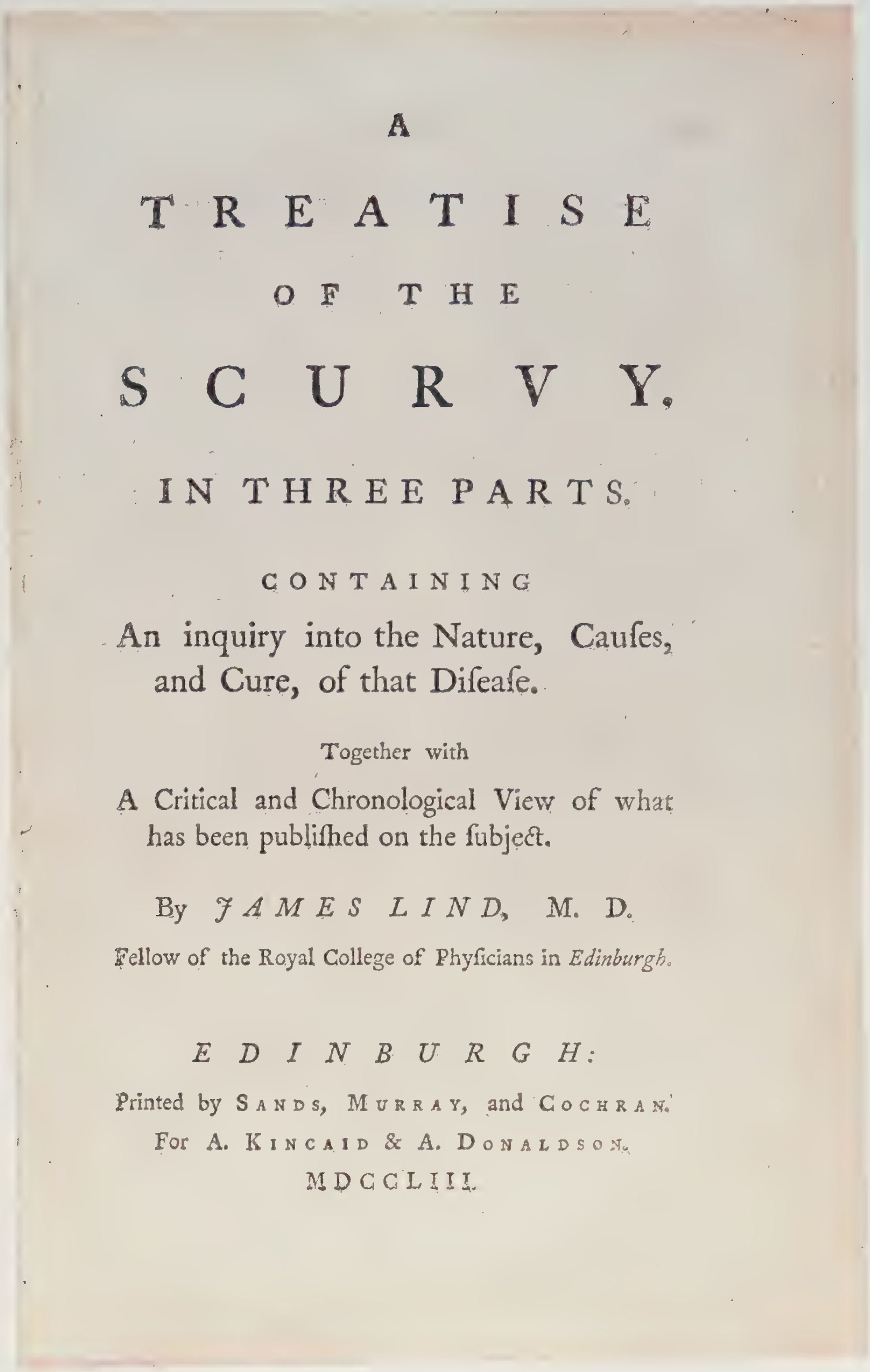
Estimate: $1,000-1,500

ɔ619

LIND, James (1716-1794). *A Treatise of the Scurvy*. Edinburgh: Sands, Murray, and Cochran for A. Kincaid & A. Donaldson, 1753.

8° (203 x 128 mm). Contemporary English sprinkled calf; quarter morocco folding case.

FIRST EDITION OF LIND'S CLASSIC TREATISE ON SCURVY. Serving as naval surgeon on the H.M.S. *Salisbury* in 1747, Lind performed what was probably the first deliberately planned controlled therapeutic trial ever undertaken. Lind isolated a dozen sailors suffering from the disease and over a fortnight gave to each pair of men one of six suggested treatments for the disease on a controlled regimen. Of the treatments tried, the oranges and lemons proved the most efficacious. The account of this famous experiment is among the many important experiments on the disease described in this work by the founder of naval hygiene in England. It also gives an excellent critical summary on previous literature on the disease. "Lind showed that in preserved form citrus juices could be carried for long periods on board ship, and that, if



A

TREATISE

OF THE

SCURVY.

IN THREE PARTS.

CONTAINING

An inquiry into the Nature, Cauſes,
and Cure, of that Diſeaſe.

Together with

A Critical and Chronological View of what
has been publiſhed on the ſubject.

By *JAMES LIND*, M. D.

Fellow of the Royal College of Phyſicians in *Edinburgh*.

EDINBURGH:

Printed by SANDS, MURRAY, and COCHRAN.
For A. KINCAID & A. DONALDSON.
MDCCLIII.

(actual size)

administered properly, they would prevent the disease. The application of this knowledge by naval surgeons who followed Lind led to the eventual elimination of the disease from the British Navy" (Garrison-Morton). A VERY FINE COPY. Dibner *Heralds of Science* 126; Garrison-Morton 3713; Grolier *Medicine* 44; NLM/Blake, p. 272; Norman 1354.

Estimate: $10,000-15,000

620

LIND, James (1716-1794). *An Essay, on the Most Effectual Means, of preserving the Health of Seamen, in the Royal Navy.* London: for A. Millar, A. Kincaid, and A. Donaldson, 1757.

12° (168 x 101 mm). (Title lightly soiled.) Contemporary tree calf (rebacked), edges gilt. FIRST EDITION of Lind's treatise describing the poor living conditions endured aboard ship by seamen during this period. Among his suggestions, he recommended better ventilation to prevent the spread of disease, as well other dietary improvements (see lot 619). Garrison-Morton 2151; Norman 1355.

[*With*:]

LIND, James. *An Essay on Diseases incidental to Europeans in hot Climates. With the Method of preventing their fatal Consequences.*

London: for T. Becket and P.Å. De Hondt, 1768. 8° (197 x 122 mm). Contemporary calf gilt (upper joint cracked, minor wear to extremities). *Provenance*: Gen. Robert Prescott (1725-1816), who served at Rochefort in 1757, at Louisburg in 1758, and at Martinique in 1761, he was involved in several actions in the American Revolutionary War, and was made Governor of Canada in 1796 (bookplate and signature). FIRST EDITION of "Lind's last major work, written for the use of travellers and emigrants to tropical countries; it remained the standard work in English on tropical medicine for half a century" (Norman). Garrison-Morton 2264; Wellcome III, p. 520; Norman 1356.

(2)

Estimate: $1,000-1,500

621

LINNAEUS, Carl (1707-1778). *Hortus cliffortianus.* Amsterdam, 1737.

2° (420 x 245 mm). Title-page printed in red and black, engraved title vignette, engraved allegorical frontispiece of the Hortus Cliffortianus by and after J. Wandelaar, 36 engraved plates (28 by Wandelaar, of which 20 are after G.D. Ehret). Contemporary diced russia gilt (early rebacking preserving original spine, renewed joints somewhat dried and starting at ends). *Provenance*: Coward College Library (bookplate).

FIRST EDITION of Linnaeus' first detailed catalogue of cultivated plants. Linnaeus prepared this catalogue of the gardens of the wealthy Anglo-Dutch merchant George Clifford during his sojourn in Holland from 1735-38. Clifford had appointed Linnaeus superintendent of his incomparable botanic gardens at the Hartekamp, near Haarlem. Produced at Clifford's expense, the *Hortus Cliffortianus* contains Linnaeus' concise definitions and elaborate synonyms for the numerous species in Clifford's garden and greenhouse. It is illustrated with beautiful plates, mostly after designs by Georg Ehret and engraved by Jan Wandelaar, and "are among the most lovely among 'plain' ones in any flower book" (Hunt). A TALL CLEAN COPY. Dunthorne 186; Hung 504; Nissen *BBI* 1215; Stafleu-Cowan TL2 4719; Wellcome III, p. 525; Norman 1358.

Estimate: $3,000-4,000

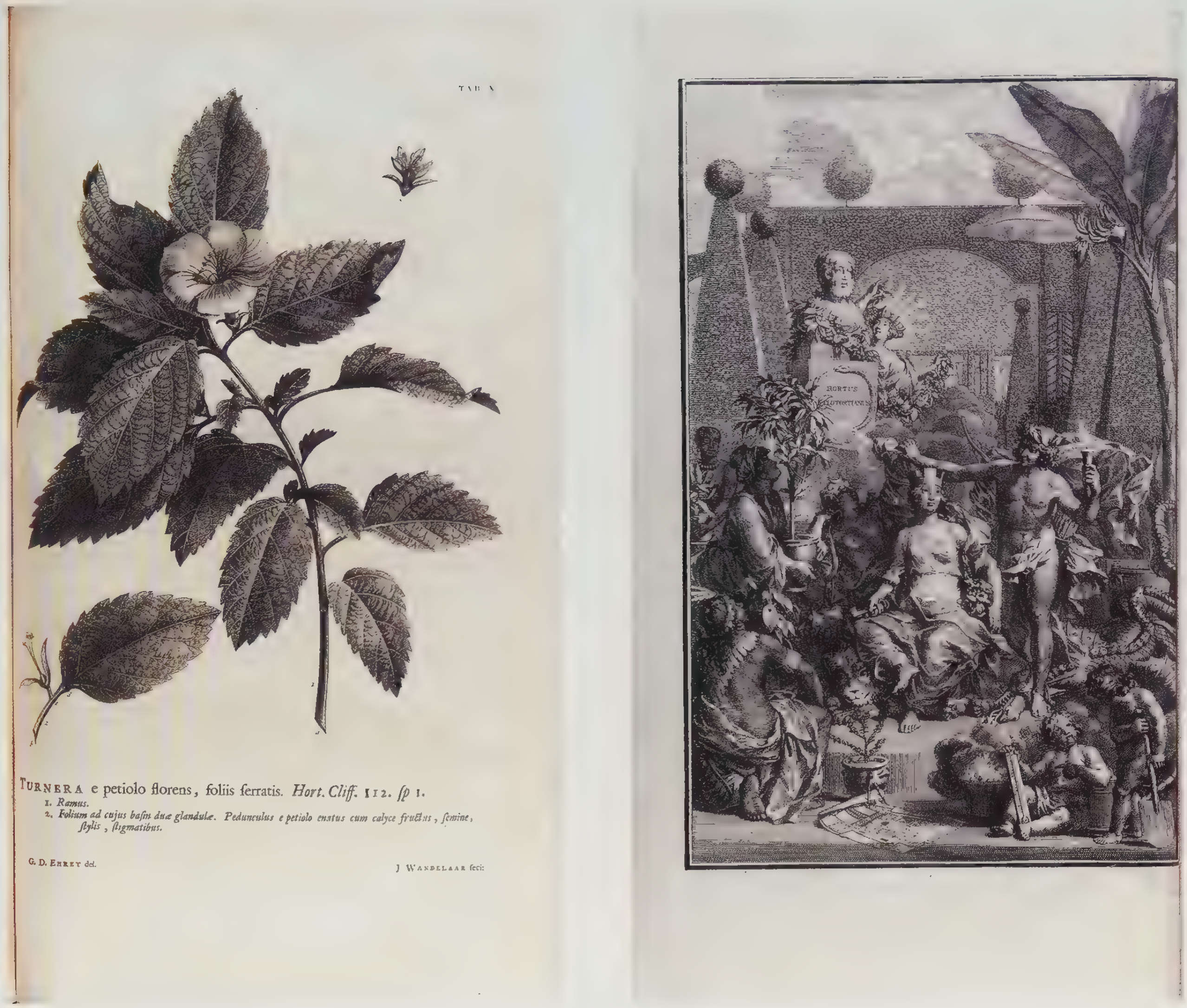
622

LINNAEUS, Carl (1707-1778). "Gloemska af alla substantiva och i synnerhet namn." In: *Kongl. Swenska Wetenskaps Academiens handlingar,* VI, pp. 116-17. [Stockholm: Lorentz Ludwig Grefing, 1745].

8° (196 x 117 mm). 2 loose leaves extracted from volume.

THE FIRST PRINTING OF THE FIRST DESCRIPTION OF APHASIA. Linnaeus had studied medicine and wrote several works on medical topics. In this rare work Linnaeus described clearly the classic symptom of aphasia—knowing what one wants to say but being unable to say it. The account of Linnaeus' patient who suffered from the disease first appeared in the journal of the Swedish Academy of Sciences. Garrison-Morton 4616; Norman 1357.

Estimate: $800-1,200


TAB. X
TURNERA e petiolo florens, foliis ſerratis. *Hort. Cliff.* 112. *ſp* 1.
1. *Ramus.*
2. *Folium ad cujus baſin duæ glandulæ. Pedunculus e petiolo enatus cum calyce fructus, ſemine, ſtylis, ſtigmatibus.*
G. D. EHRET del.
J WANDELAAR fecit
HORTUS CLIFFORTIANUS

621

623

LINNAEUS, Carl (1707-1778). *Systema naturae per regna tria naturae, secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis ... editio decima, reformata.* Stockholm: Laurentius Salvius, 1758-59.

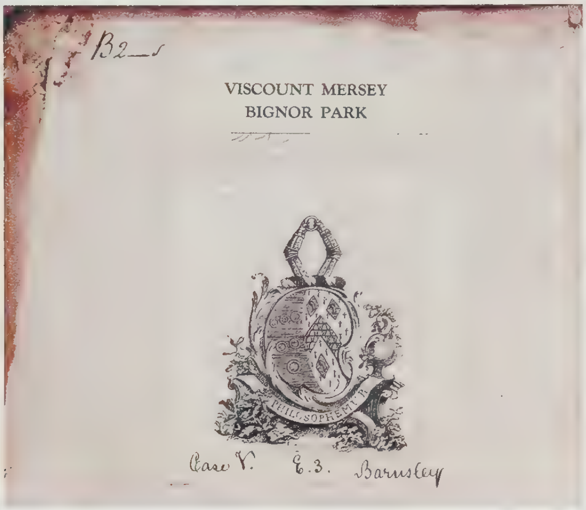
2 volumes, 8° (202 x 123 mm). Contemporary mottled calf, spines gilt.

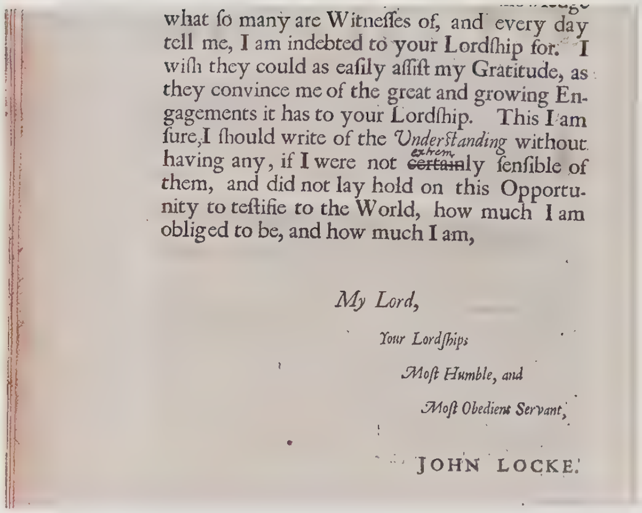
Tenth edition, and an important edition as "THE STARTING POINT FOR ZOOLOGICAL NOMENCLATURE" (Stafleu-Cowan). Linnaeus' system of binomial classification was originally published in 1735 as a series of seven folio broadsheets and originally applied to plants only. As he collected new data Linnaeus revised and updated the *Systema naturae* and he eventually applied his system of classification to all of zoology, where it appears here for the first time. Stafleu-Cowan TL2 4794; Norman 1359.

[*With*:]

LINNAEUS, Carl. ...*Systema natura.* Holm, 1907. Folio broadsheets (572 x 455 mm). Photographic frontispiece reproducing H. Kingsbury's engraving of portrait by Martin Hoffman. Sheep-backed marbled boards, leather label on front cover. Facsimile edition of the first edition of Linnaeus' *Systema natura*, originally published in 1735. Norman 1360. (2)

Estimate: $1,000-1,500




what ſo many are Witneſſes of, and every day tell me, I am indebted to your Lordſhip for. I wiſh they could as eaſily aſſiſt my Gratitude, as they convince me of the great and growing Engagements it has to your Lordſhip. This I am ſure, I ſhould write of the *Underſtanding* without having any, if I were not ~~certain~~extremly ſenſible of them, and did not lay hold on this Opportunity to teſtifie to the World, how much I am obliged to be, and how much I am,

My Lord,

Your Lordſhips

Moſt Humble, and

Moſt Obedient Servant,

JOHN LOCKE.

(details)

0624

LOCKE, John (1632-1704). *An Essay concerning Humane Understanding*. London: Elizabeth Holt for Thomas Basset, 1690.

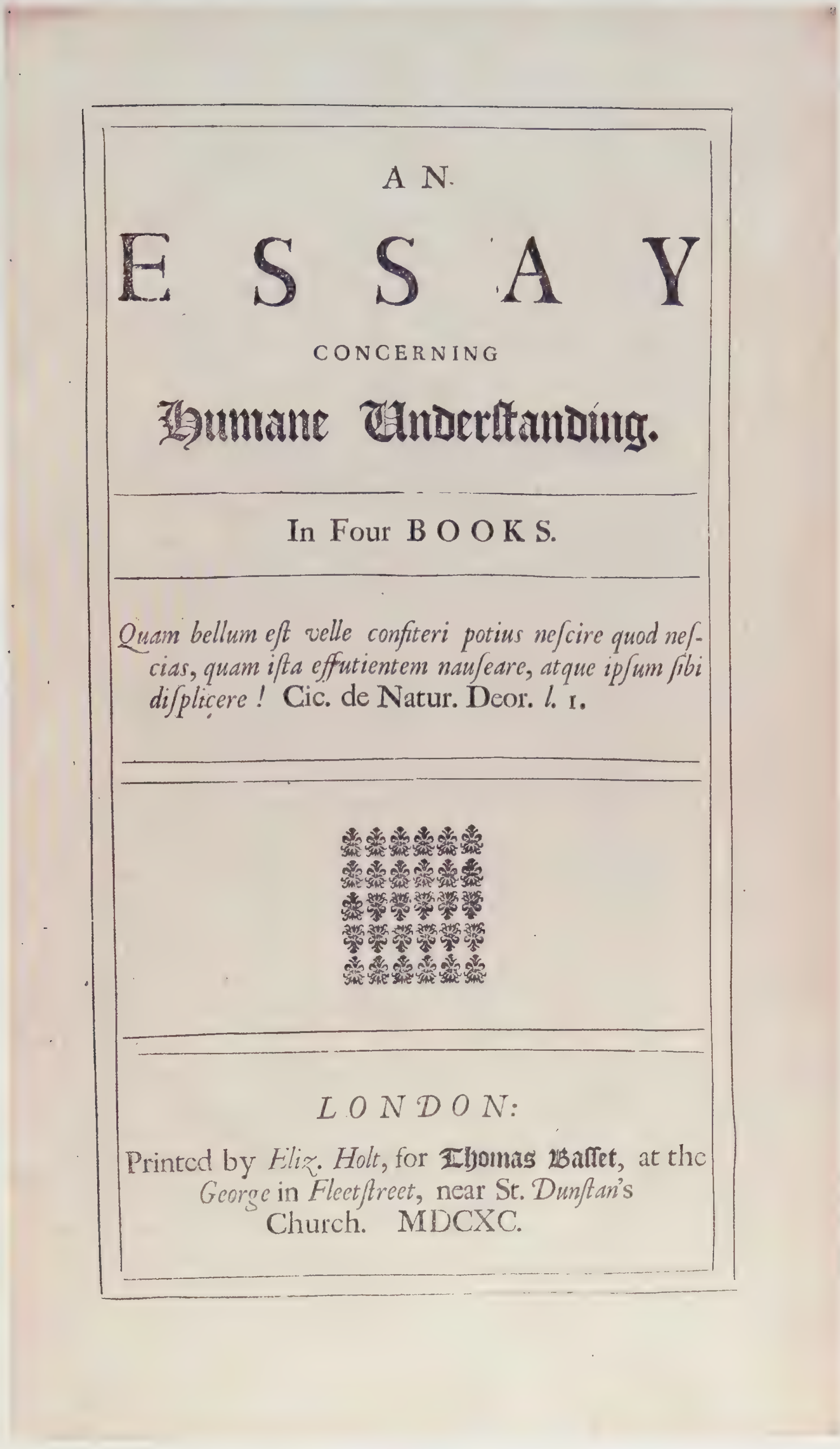
Median 2° (323 x 197 mm). Collation: A^4 a^2 (title, author's dedication to the eighth Earl of Pembroke, epistle to the reader, errata); B-Z^4 Aa^4 (text Books I-II); Bb-Zz^4 Aaa-Ccc^4 (Books III-IV, table of contents). Type-ornament vignette on title. Contemporary English mottled calf, spine gold-tooled in compartments and red morocco lettering piece, red-and-green sprinkled edges, (spine-ends repaired, joints worn).

Provenance: in this copy the author has corrected one word and inserted another in his own hand, changing "certainly sensible" to "extremly sensible" at the end of his dedication, and adding the word "some" to "Discovery," which according to Locke in the epistle to the reader is made by every step the Mind takes in its progress towards Knowledge; Sir Isaac Newton, perhaps presented to him by Locke (dozens of leaves faintly but clearly dog-eared at lower outer corner, Newton's unmistakable habit of marking passages of interest to him, the entire library sold promptly after his death in 1727 to); John Huggins (bequeathed to his son); Charles Huggins, rector of Chinnor, Oxfordshire (engraved armorial bookplate, manuscript shelfmark, the library inherited by); James Musgrave, husband of C. Huggins's niece and successor to the rectorate of Chinnor in 1750 (engraved armorial bookplate pasted over that of Huggins's); transferred after Musgrave's death in 1778 by his son to Barnsley Park in Gloucestershire (shelfmark); Viscount Mersey (Bignor Park bookplate).

IMPORTANT ASSOCIATION COPY FROM SIR ISAAC NEWTON'S LIBRARY, with two autograph revisions by Locke and therefore possibly a presentation copy. FIRST EDITION, FIRST ISSUE of the first modern theory of human knowledge. Locke investigates the mechanism of comprehension, analyses the extent of the human ability to apprehend ideas and to what extent the mind can understand the universe. It is clear that Locke's philosophy was highly relevant to Newton, whose scientific work aimed at proving the physical unity of the cosmos and whose mathematical innovations to express his law of gravity stretched human understanding until Einstein stretched it even further. Locke's conclusion was that knowledge inevitably falls short of total comprehension, but that we are not at the mercy of pure chance and can go a considerable distance towards controlling our own destiny.

FINE CONDITION. Attig 228; Garrison-Morton 4967; Hunter & Macalpine pp 236-9; J. Harrison, *The Library of Sir Isaac Newton* (1978) 967; Pforzheimer 599; PMM 164; Wing L-2738; Norman 1380.

Estimate: $30,000-40,000



A N

E S S A Y

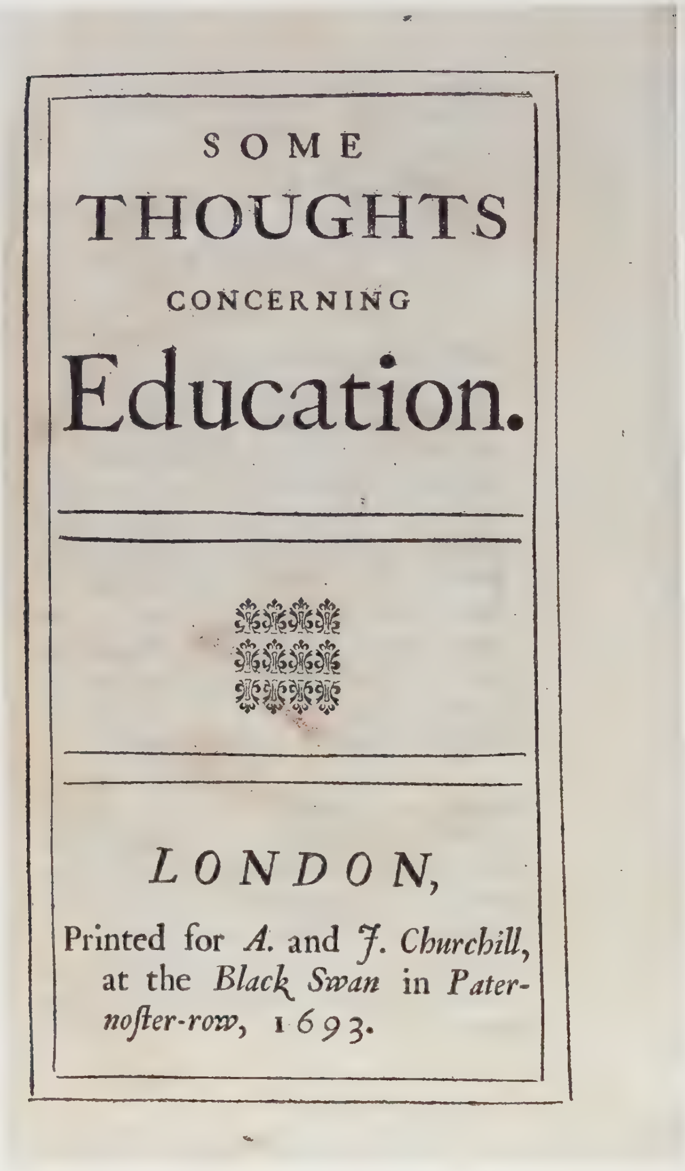
CONCERNING

Humane Underſtanding.

In Four BOOKS.

Quam bellum eſt velle confiteri potius neſcire quod neſcias, quam iſta effutientem nauſeare, atque ipſum ſibi diſplicere! Cic. de Natur. Deor. *l.* 1.

LONDON:
Printed by *Eliz. Holt*, for **Thomas Baſſet**, at the
George in *Fleetſtreet*, near St. *Dunſtan's*
Church. MDCXC.



SOME
THOUGHTS
CONCERNING
Education.

LONDON,
Printed for *A.* and *J. Churchill*,
at the *Black Swan* in *Pater-noſter-row*, 1693.

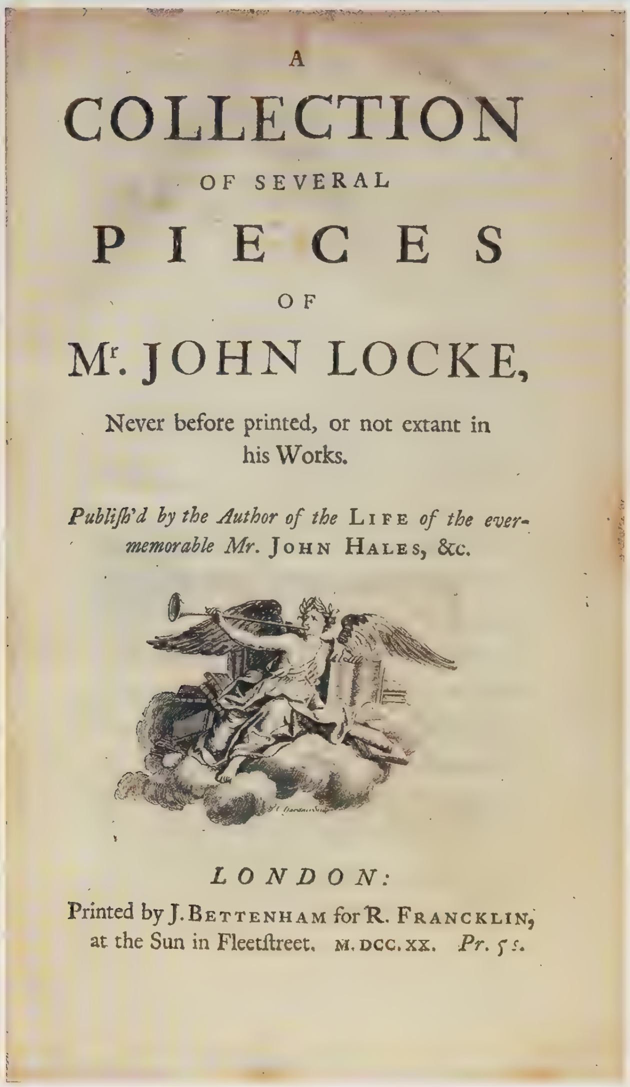
625

LOCKE, John (1632-1704). *Some thoughts concerning education.* London: for A. & J. Churchill, 1693.

8° (173 x 104 mm). Contemporary panelled mottled calf, gilt spine, later leather spine label (joints, spine-ends and corners worn).

Second edition. Published the same year as the first edition, with no statement of edition on title, but with some textual corrections. Based on letters written from Holland in 1684 to Locke's friend Edward Clarke, M.P. for Taunton, concerning Clarke's children (Locke was himself childless), it was published with the encouragement of Locke's disciple, William Molyneux, a widower with a son. It contains "the seeds of modern developmental psychology" (Norman), dealing both with a child's physical and moral needs, and advocating strictness in both. The "third edition" was published in 1695. Wing L-2762; J. Yolton, PBSA (1981), pp. 315-321; Norman 1381.

Estimate: $2,000-3,000



A
COLLECTION
OF SEVERAL
PIECES
OF
Mr. JOHN LOCKE,
Never before printed, or not extant in
his Works.

Publiſh'd by the Author of the LIFE *of the ever-memorable Mr.* JOHN HALES, &c.

LONDON:
Printed by J. BETTENHAM for R. FRANCKLIN,
at the Sun in Fleetſtreet. M.DCC.XX. *Pr.* 5 *s.*

626

LOCKE, John (1632-1704). *A collection of several pieces of Mr. John Locke, never before printed, or not extant in his works*. Edited by Pierre Desmaizeux (1673?-1745). London: J. Bettenham for R. Francklin, 1720.

8° (197 x 118 mm). Engraved plate. Contemporary gilt-ruled calf (rebacked). *Provenance*: SIR ISAAC NEWTON, whose entire library was sold soon after his death in 1727 to; John Huggins (bequeathed to his son); Charles Huggins, rector of Chinnor, Oxfordshire (engraved armorial bookplate, manuscript shelfmark, the library inherited by); James Musgrave, husband of Charles Huggins' neice and successor to the rectorate of Chinnor in 1750 (engraved armorial bookplate pasted over that of Huggins); transferred after Musgrave's death in 1778 by his son to Barnsley Park in Gloucestershire (shelfmark); Viscount Mersey (Bignor Park bookplate). See also lot 624.

AN IMPORTANT ASSOCIATION COPY FROM SIR ISAAC NEWTON'S LIBRARY. FIRST EDITION. A posthumous collection of essays, letters, and other works including "The fundamental constitutions of Carolina," which appears to be the first attempt to create a written constitution for the colony. This copy was one of thirteen of Locke's books in Sir Isaac Newton's library, but apparently does not show any dog-eared lower corners characteristic of many of Newton's books (see lot 624). Norman 1382.

Estimate: $2,000-3,000

627

[LONDON]. *London's dreadful visitation; or a collection of all the bills of mortality for this present year.* London: E. Cotes, 1665. 4° (195 x 161 mm). Folding letterpress table, woodcut title border of *memento mori* motifs (cropped at upper and lower margins). (Title-page browned, some slight browning to text, several margins shaved, affecting some headlines and cropping signatures, and occasionally shaving and cropping text). Later half calf (binding broken). *Provenance*: Oxford University ("Radcliffe Library/University Museum" stamp), Bodleian Library (deaccession stamp).

FIRST EDITION, variant with "27th of December" on title. Listing week by week the births and deaths in each of London's parishes, with the causes of death. Of some 97,300 deaths recorded during the year, 68,596 were of the plague. Other causes of death recorded include "griping in the guts," "stopping of the stomach," "rising of the lights" and "head-mould shot." Bills of mortality such as these were analysed by John Gaunt in *Natural and political observations ... made upon the bills of mortality*, regarded as the foundation of medical statistical analysis (see lot 477). Garrison-Morton 5119; NLM/Krivatsy 7098; Wing G-1593A; Norman 1385.

Estimate: $1,000-2,000

628

[LONDON—PLAGUE]. *Reflections on the weekly bills of mortality for the cities of London and Westminster, and the places adjacent: but more especially, so far as it relates to the plague, and other most mortal diseases that we English-men are most subject to, and should be most careful against in this our age.* London: Samuel Speed, 1665.

4° (205 x 142 mm). (Titlepage and several other leaves repaired, not affecting text, some edges uncut, minor tear in F2 not affecting text, small hole on F3 touching 2 letters). Panelled calf antique, gilt spine and cornerpieces.

Presumed FIRST EDITION. Keynes states that two editions of *Reflections* were published in the same year. Based on John Graunt's *Natural and political observations* (see lot 477), and containing figures for deaths from the plague and from other causes for the years 1629-1665, with reflections on the repopulation of the city and recipes for the cure and prevention of the plague. Keynes, *Petty*, p.81; Wing G-1603; Norman 934.

Estimate: $800-1,000

629

[LONGITUDE]. [QUEEN ANNE]. *Anno Regni Annae Reginae Magna Britannia, Francia, & Hibernia, duodecimo.* London: John Baskett and the assigns of Thomas Newcomb, and Henry Hills, deceased, 1714. 2° (306 x 203 mm). (Some browning to text.) Contemporary tooled calf, red leather gilt spine label. *Provenance*: Some early marginalia. FIRST EDITION. The 23 acts of the first session of Parliament of 1714, including *An act for providing a publick reward for such person or persons as shall discover the longitude at sea*, pp. [353]-357, one of the first known examples of a reward offered by a government to stimulate scientific research. £20,000 was offered for a method of discovering longitude at sea to within half a degree; lesser amounts were offered for less precise solutions. The reward was not claimed and the problem was unsolved until John Harrison (1693-1776) invented the chronometer in the 1760s. Horblit 42a; Norman 2. — [GEORGE III]. *An Act for rendering more effectual ... An Act for providing a Publick reward for such person or persons as shall discover the longitude at sea ....* London: Mark Basskett; and the Assigns of Robert Baskett, 1762. 2° (334 x 209 mm). Disbound. Paginated: [673]-678. Norman 3. — [SHORT, James]. *An account of the Proceedings, in order to the discovery of the Longitude: in a Letter to the Right Honourable ******.* London: T. and J.W. Pasham, 1763. 4° (239 x 192 mm). (Some minor marginal dampstains). Disbound. *Provenance*: an early hand-correction. FIRST EDITION. "This pamphlet gives a history of the efforts to discover a reliable means of finding the longitude, as well as an account of the various tests to which Harrison's timekeepers were subjected" (Norman 1941). — [SHORT, James]. *A Narrative of the Proceedings related to the Discovery of the Longitude at Sea; by Mr. John Harrison's Time-Keeper; subsequent to those published in the Year 1763.* London: for the author, and sold by Mr. Sandey, 1765. 8° (195 x 125 mm). Disbound. FIRST EDITION. Norman 1942. — [HARRISON, John (1693-1776)]. An Act for granting to His Majesty a certain Sum of Money out of the Sinking Fund ... for paying to John Harrison for further Reward for his Invention of a Time-keeper [drop-title]. In: *Anno regni Georgii III ... decimo tertio. At the Parliament begun ... the Tenth Day of May ... 1768.* London: Charles Eyre and William Strahan, 1773. 2° (315 x 194 mm). Disbound. Norman 999. — [GEORGE III] *An Act for the repeal of all former Acts concerning the longitude at sea ... and for the more effectual encouragement and reward of such person and persons as shall discover a method for finding the same ....* London: Charles Eyre and William Strahan, 1774. 2° (311 x 192 mm). Disbound. Paginated: [1485]-1496. Norman 4. (See also lots 499-500.)

(6)

Estimate: $1,000-1,500

630

[LORRY, Anne Charles de (1726-1783)]. *Tractatus de morbis cutaneis.* Paris: P. Guillaume Cavelier, 1777.

4° (247 x 190 mm). Contemporary marbled calf gilt, red morocco lettering pieces on spine (some splitting to joints near spine ends). *Provenance*: M. Mitivié, Hospices Civils de Paris (prize binding with gilt-lettered lettering piece which reads: "Hospices Civils de Paris Année 1817 prix / M. Mitivié").

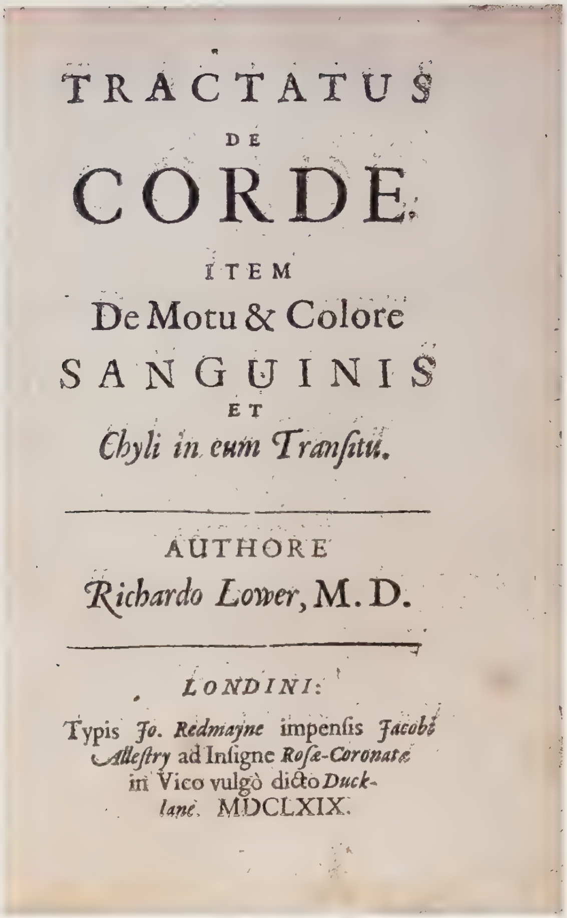
FIRST EDITION OF THE FIRST MODERN TEXT ON DERMATOLOGY, and the last major work on dermatology to be published in Latin. Lorry "attempted the classification of diseases on the basis of essential relations, their physiological, pathological, and etiological similarities" (Garrison-Morton 3983). Waller 6020; Wellcome III, p. 547; Norman 1392.

[*With*:]

[LORRY, Anne Charles de]. *De melancholia et morbis melancholicis.* Paris: P. Guillaume Cavelier, 1765. 2 volumes, 8° (217 x 137 mm). (Some very minor scattered foxing.) Contemporary mottled paper-backed boards, uncut. FIRST EDITION of Lorry's treatise on melancholia, in which he showed "how one could make use of the mind's influence on the body in curing melancholias" (Norman). Hunter-Macalpine, p. 736; Wellcome III, p. 547; Norman 1391.

(2)

Estimate: $1,000-1,500



TRACTATUS

DE

CORDE.

ITEM

De Motu & Colore

SANGUINIS

ET

Chyli in eum Tranſitu.

AUTHORE

Richardo Lower, M. D.

LONDINI:

Typis *Jo. Redmayne* impenſis *Jacobi*
Alleſtry ad Inſigne *Roſæ-Coronatæ*
in Vico vulgò dicto *Duck-*
lane. MDCLXIX.

631

LOWER, Richard (1631-1691). *Tractatus de corde. Item de motu & colore sanguinis et chyli in eum transitu.* London: John Redmayne for James Allestry, 1669.

8° (163 x 105 mm). Collation: A-Q^{8}. 128 leaves. Seven folding engraved plates, ornamental woodcut initials and typographical headpieces. (A6 slit for cancellation and discreetly repaired without loss of text, plates 5-6 cropped touching image, a few mostly marginal stains.) Modern brown morocco by Sangorski & Sutcliffe; modern cloth folding box.

FIRST EDITION, FIRST ISSUE of "the most important contribution to circulatory physiology after William Harvey's *De motu cordis*" (Grolier *Medicine*). Lower was a London physician who had studied at Oxford, where he knew Thomas Willis, Robert Boyle and Robert Hooke. *Tractatus de corde* reports his observations on the scroll-like structure of the cardiac muscle, the velocity of blood flow and its quantity, as well as the effects of aeration on the blood as it passes through the lungs. Lower also described a blood transfusion between dogs, thus demonstrating the safety of a method that was later to revolutionize surgery.

Tractatus de corde exists in two issues, the first with the original leaf A6 containing the catchword "Im-," the second with a cancel leaf containing the catchword "quic-." According to Fulton, the reason for the change was "to modify (very slightly) a scurrilous remark that [Lower] had originally made concerning the Irishman O'Meara" (Fulton, p. 17). The present copy contains the original leaf A6 describing Edmund O'Meara [or Meara], who had attacked Lower's friend Thomas Willis (see lots 866-70), as "outstanding for his exceptional stupidity and impudence." VERY RARE.

John F. Fulton, *The Oxford Physiologists: Richard Lower 1631-1691; John Mayow 1643-1679* (Oxford 1935) 4; Garrison-Morton 761; Grolier *Medicine* 34; NLM/Krivatsy 7157; PMM 149; Waller 6046; Wellcome III, p. 552; Wing L-3310; Norman 1397.

Estimate: $12,000-18,000

632

MACLAURIN, Colin (1698-1746). *A treatise of fluxions.* Edinburgh: T.W. and T. Ruddimans, 1742.

2 volumes. 4° (236 x 180 mm). 25 engraved folding plates (Vol. 1), 16 engraved folding plates (Vol. 2). Contemporary calf with gilt spines and red leather labels (some wear to joints). *Provenance*: Colonel George Callander of Craigforth (armorial bookplate); small blue and white library plates (Vol 1., upper cover; Vol. 2, lower cover).

FIRST EDITION. "The earliest logical and systematic publication of the Newtonian methods" (DSB). Professor of Mathematics at Edinburgh University, and both disciple and friend of Newton, MacLaurin hoped to silence critics of Newtonian methods, notably Bishop Berkeley of Cloyne, who in 1734 published *The Analyst*, which "had represented the Method of Fluxions as founded on false Reasoning, and full of Mysteries" (MacLaurin). MacLaurin provided a geometrical framework for the theory, and for numerous other problems. His emphasis on Newtonian geometry was very influential, and diverted attention from the analytical methods being formulated on the Continent. A LARGE FINE COPY. Norman 1408. (2)

Estimate: $2,000-3,000

633

[MAGIC]. NAUDÉ, Gabriel (1600-1653). *Apologie pour tous les grandes personnages qui ont faussement soupçonnez de magie.* Paris: François Terga, 1625. 8° (172 x 110mm). Contemporary vellum, hand-lettered spine (chip at base of spine). FIRST EDITION. A defense, by the librarian to Cardinals Richelieu and Mazarin, of great men who had been accused of practicing magic, specifying four types of magic, one of which, natural magic, includes astrology, astronomy, chemistry, alchemy, physiognomy, etc. NLM/Krivatsy 8266; Norman 1575. — Claude de LA BELLIÈRE. *La physionomie raisonée ou secret curieux pour connoître les inclinations de chacun par les regles naturelles.* Paris: E. Couterot, 1664. 12° (136 x 77 mm). (Minor stains). Contemporary sheep, edges speckled red (rebacked and repaired, preseving original gilt spine). FIRST EDITION (both French and Italian versions were published in 1664). NLM/Krivatsy 6523; Norman 1246. (2)

Estimate: $1,200-1,800

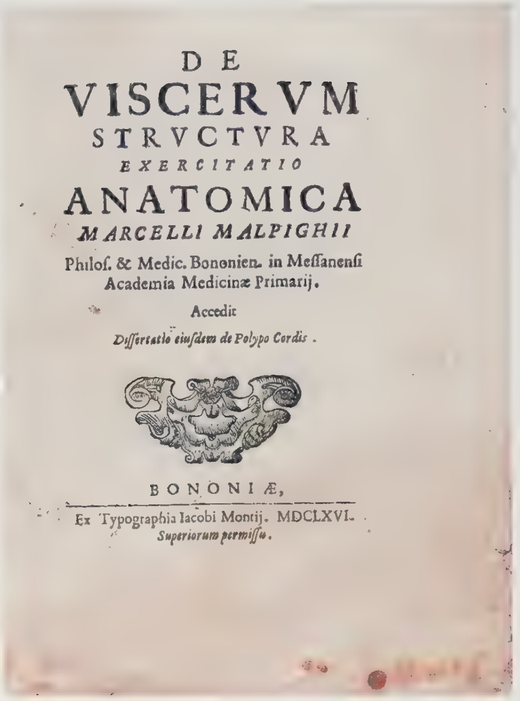
634

MAILLET, Benoît de (1656-1738). *Telliamed ou entretiens d'un philosophe Indien avec un Missionnaire François sur la Diminution de la Mer, la Formation de la Terre, l'Origine de l'Homme, &c. Mis en ordre sur les Mémoires de seu M. de Maillet.* Amsterdam: L'Honoré & Fils, 1748.

2 volumes, 8° (191 x 115 mm). Contemporary mottled calf, spine gilt, red morocco lettering piece.

FIRST EDITION. Important work on the diminution of the sea and the expansion of the continents, presented under the name of a fictitious Indian philosopher ('de Maillet' spelled backwards). Since the ideas of this work were consider dangerous and disturbing it wasn't published until 10 years after Maillet's death eventhough it was written between 1692 and 1708. Barbier IV:673; Ward & Carozzi 1457; Norman 1422.

Estimate: $600-800



DE
VISCERVM
STRVCTVRA
EXERCITATIO
ANATOMICA
MARCELLI MALPIGHII
Philoſ. & Medic. Bononien. in Meſſanenſi
Academia Medicinæ Primarij.
Accedit
Diſſertatio eiuſdem de Polypo Cordis.

BONONIÆ,
Ex Typographia Iacobi Montij. MDCLXVI.
Superiorum permiſſu.

636

›635

MALPIGHI, Marcello (1628-1694). *Tetras anatomicarum epistolarum de lingua, et cerebro ... quibus anonymi accessit exercitatio de omento, pinguedine, & adiposis ductibus*. Bologna: Vittorio Benazio, 1665.

12° (126 x 70 mm). 2 (of 3) folding engraved plates (the third plate supplied in facsimile). (Some staining to title and preliminaries.) Contemporary vellum (some chipping and wear). *Provenance*: some early marginalia.

FIRST EDITION of Malpighi's second work, which is composed of letters addressed to his colleagues Carlo Fracassato and Giovanni Borelli, followed by Fracassato's commentary. In *De lingua*, Malphigi reported peeling two layers from the surface of the tongue and thereby exposing the papillary body, in which he distinguished three orders of papillae (or sensory receptors), and speculated that these could be stimulated by "sapid" particles dissolved in the saliva. His treatise entitled *De cerebro* deals with the white substance of the central nervous system, which Malpighi discovered to be composed of the same fibers that form the nerves. Osler 989; Waller 6207; Norman 1426.

Estimate: $600-800

›636

MALPIGHI, Marcello (1628-1694). *De viscerum structura exercitatio anatomica*. Bologna: Giacomo Monti, 1666.

4° (237 x 179 mm). (Title lightly soiled, short internal marginal tear on X4.) Modern vellum, partly uncut. *Provenance*: some early marginalia.

VERY RARE FIRST EDITION of this collection of anatomical treatises, which includes Malpighi's classic treatise on the kidney, *De renibus proemium*, in which he described the uriniferous tubules as well as the "Malpighian bodies." It also includes the first description of Hodgkin's disease on pages 125-26. "Malpighi's studies of the kidney gave support to his iatromechanical theory of glands as secretion machines; he concluded that the glomeruli were in direct contact with both arteries and veins, and postulated a similar connection between the glomeruli and uninary vessels" (Norman). The final work included is his chief hematological treatise, *De polypo cordis dissertatio*, which contains Malpighi's demonstration that the polyps consisted of coagulum found in normal bood. Garrison-Morton 535 and 1230; NLM/Krivatsy 7331; Norman 1427.

Estimate: $3,000-4,000

637

MALPIGHI, Marcello (1628-1694). *Dissertatio epistolica de bombyce.* Edited by Henry Oldenburg (1615?-1677). London: John Martyn and Jacob Allestry, 1669.

4° (230 x 173 mm). 12 folding engraved plates (one with several pale stains and patch on verso). (Some minor marginal soiling.) Modern half calf (some wear at edges).

FIRST EDITION of Malpighi's important work on the structure of the silkworm, representing the first monograph on an invertebrate. "In *de bombyce* he had carefully observed the artisan nature construct each of the three stages—larva, chrysalis, and moth—through which the silkworm is formed. He further remarked on the specific apparatuses with which the silkworm is provided, among them the air ducts (tracheae) and the blood duct with a number of pulsating centers (corcula)" (DSB). Before this work appeared, the sillkworm was thought to have no internal organs. The Norman copy contains Oldenburg's Epistola misbound at end. Garrison-Morton 293; Nissen *BBI* 2658; NLM/Krivatsy 7334; Wing M-349; Norman 1428.

Estimate: $1,500-2,500

638

MALPIGHI, Marcello (1628-1694). *Dissertatio epistolica de formatione pulli in ovo.* London: John Martin, 1673.

4° (237 x 176 mm). G2 cancelled (Krivatsy states this leaf is the title-page for his Dissertationes epistolicae duae). 4 folding engraved plates (some repairs at folds on verso). Some minor pale browning.) Modern calf.

FIRST EDITION of Malpighi's work which, along with his *De ovo incubato* (1673), "placed the study of embryology on a sound basis, surpassing in accuracy all other contemporary work on the subject and foreshadowing some of the more important general lines of research in embryology" (Garrison-Morton). Nissen *ZBI* 2660; NLM/Krivatsy 7335; Wing M-350; Norman 1429.

Estimate: $1,500-2,500

639

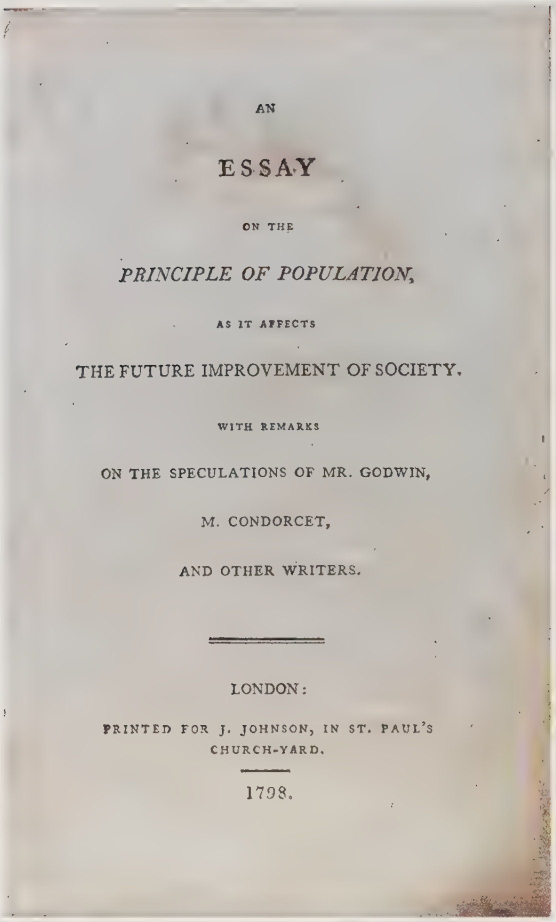
MALPIGHI, Marcello (1628-1694). *Anatome plantarum. Cui subjungitur appendix ... de ovo incubato observationes continens.* London: John Martin, 1675-79.

2 volumes, 2° (356 x 224 mm [Vol. 1], 353 x 229 mm [Vol. 2]). Title-pages printed in red and black, 2 engraved frontispieces, engraved arms of the Royal Society on titles, and 100 engraved plates (one plate creased and with short tear, some even browning and dampstaining to plates [Vol. 1], plate 21 torn small repairs on verso [Vol. 2]). (Some minor browning and spotting, soiling, lower fore-corner chipped on B1 in first volume.) Bound in similar contemporary vellum bindings (some wear and soiling, a few chips and small defects).

FIRST EDITION OF MALPIGHI'S CLASSIC WORK ON PHYTOTOMY, the foundation along with the work of Grew of plant anatomy (see lot 480). Malpighi was working (simultaneously with Grew) on the microscopic anatomy of plants at Bologna University where he was professor of medicine. "Malpighi acquired great skill as a microscopist; he was also an accurate draughtsman, and his figures of plant anatomy illustrating his work are outstanding. As Miall remarks, 'we are often astonished that so early an investigator should have seen so much and understood so well what he saw'" (Henrey). The first volume contains a reprint of Malpighi's *De ovi incubato* at end (first published 1672). Grolier/Horblit 43a; Henrey 239; Nissen *BBI* 1269; Wing M-345; Norman 1430.

(2)

Estimate: $1,000-1,500



AN

ESSAY

ON THE

PRINCIPLE OF POPULATION,

AS IT AFFECTS

THE FUTURE IMPROVEMENT OF SOCIETY.

WITH REMARKS

ON THE SPECULATIONS OF MR. GODWIN,

M. CONDORCET,

AND OTHER WRITERS.

LONDON:

PRINTED FOR J. JOHNSON, IN ST. PAUL'S
CHURCH-YARD.

1798.

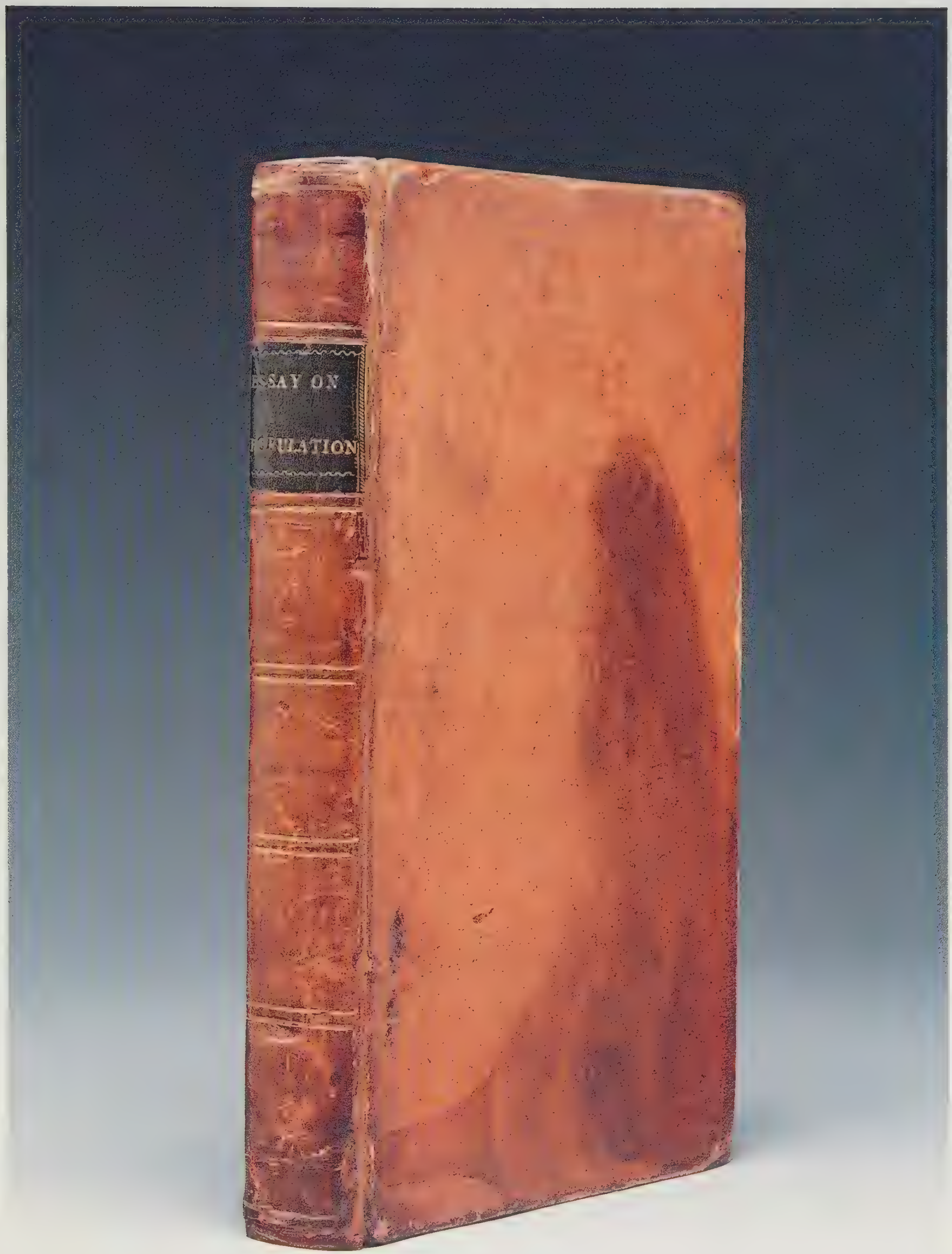
3640

[MALTHUS, Thomas Robert (1766-1834)]. *An Essay on the Principle of Population, as it affects the Future Improvement of Society*. London: for J. Johnson, 1798.

8° (203 x 127 mm). Printed on blue tinted paper. (Some very minor foxing on title and minor marginal soiling.) Contemporary sprinkled calf, smooth spine with gilt bands and green morocco lettering piece (rebacked preserving original spine); cloth slipcase. *Provenance*: Sir Charles Aldis (ca. 1755-1863), surgeon who introduced vaccination in Hertford and founded Cancer hospital, Clifford Street, London (engraved armorial bookplate and his notations on front flyleaf, dated 24 August 1836, discussing the book).

VERY RARE FIRST EDITION OF THIS INFLUENTIAL WORK ON POPULATION GROWTH. "The central idea of the essay—and the hub of Malthusian theory—was a simple one. The population of a community, Malthus suggested, increases geometrically, while food supplies increase only arithmetically. If the natural increase in population occurs the food supply becomes insufficient and the size of the population is checked by 'misery'—that is the poorest sections of the community suffer disease and famine. Malthus recognized two other possible checks to population expansion: first 'vice'—that is, homosexuality, prostitution and abortion (all totally unacceptable to Malthus); and second 'moral restraint'—the voluntary limitation of the production of children by the postponement of marriage" (PMM). Malthus's *Essay*, which began as the outcome of a discussion with his father on the perfectibility of society, was highly influential in the progress of thought in early 19th-century Europe. It exerted a great influence upon socio-economic theorists from Ricardo to Mill to Marx, and inspired Quetelet's and Verhulst's precise statistical studies of population growth. Both Darwin and Wallace acknowledged Malthus as a source of the idea of "the struggle for existence." Garrison-Morton 1693; Kress B.3693; PMM 251; Norman 1431.

Estimate: $40,000-60,000


ESSAY ON
POPULATION

5641

MANDEVILLE, Bernard de (ca. 1670-1733). *A Treatise of the hypochondriack and hysterick Passions, vulgarly call'd the Hypo in Men and Vapours in Women.* Dryden Leach and W. Taylor, 1711.

8° (186 x 113 mm). (Some minor light browning on preliminaries.) Contemporary English panelled calf (front joint starting at ends).

FIRST EDITION of "possibly the first psychiatric self-help book" (Norman). Hunter and Macalpine consider Mandeville's work "the first book on minor mental maladies 'writ by way of Information to Patients' rather than 'to teach other Practitioners'" (Hunter-Macalpine). Mandeville is best known for his *The Fable of Bees*, a controversial satiric poem maintaining the essential vileness of human nature. Hunter-Macalpine, p. 296; Norman 1432.

Estimate: $500-700

5642

MARCHETTI, Pietro de. (circa 1589-1673). *Observationum medico-chirurgicarum rariorum sylloge.* Padua: Matteo de Cadorini, 1664.

8° (162 x 105 mm). Engraved title and engraved portrait (lacks engraved plate, minor marginal worming.) Modern vellum.

FIRST EDITION. Marchetti's book contains numerous observations in surgery, including surgery on the brain, and other organs. Garrison-Morton 5572; NLM/Krivatsy 7417; Waller 6242; Norman 1436.

Estimate: $800-1,200

5643

[MARIOTTE, Edmé (d. 1684)]. *Nouvelle découverte touchant la veüe.* Paris: Frederic Leonard, 1668.

4° (239 x 174 mm). Woodcut device on title, woodcut diagram. (Some pale dampstaining.) Late 17th- or early 18th-century mottled calf, spine calf (minor wear to extremities); cloth folding case.

FIRST EDITION OF THE FIRST ANNOUNCEMENT OF THE DISCOVERY OF THE BLIND SPOT IN THE EYE. Mariotte's first work immediately embroiled him in a controversy that lasted until his death over the seat of vision. His experiments to determine what happened to light rays striking the base of the optic nerve led him to the discovery of the blind spot, or defect of vision in the eye, as he called it. As a result he abandoned the traditional view that images in the eye are formed on the retina, and became involved in a dispute over this with his fellow academician, the anatomist Jean Pecquet. A series of experiments carried out before the Academy in August 1669 widened the area of disagreement between the two, as did Perrault's support of Pecquet. Pecquet's letter disputing Mariotte's claim is included in this work. VERY RARE. Garrison-Morton 1481.1; Norman 1439.

[*Bound after:*]

[PERRAULT, Claude (1613-1688)]. *Extrait d'une lettre écrite à Monsieur de la Chambre, qui contient les observations qui ont esté faites sur un grand Poisson dissequé dans la Bibliotheque du Roy, le vingt-quatriéme Juin 1667 -Observations qui ont eté faites sur un Lion dissequé dans la Bibliotheque du Roy, le ving-huictième Juin 1667.* Paris: Frederic Leonard, 1667.

4°. 2 folding engraved plates. Collation: A-C^2; D-G^2 (drop- titles on A1 and D1, respectively; apparently published without separate title-page). 14 leaves. FIRST EDITION of Perrault's anonymous first publication in comparative anatomy, describing the dissections of a lion and thresher shark from the royal menagerie. VERY RARE. Cole, *Comparative Anatomy*, pp. 393-425; Norman 1685. [*Bound after:*]

[PERRAULT, Claude]. *Description anatomique d'un cameleon, du'un castor, d'un dromedaire, d'un ours, et d'une gazelle.* Paris: Frederic Leonard, 1669.

4°. 5 folding engraved plates by Sebastien LeClerc (one with tear repaired). FIRST EDITION. Although some of the discoveries which Perrault and his group of anatomists (known as the "Parisians") most prided themselves had been observed earlier, "no such detailed and exact descriptions and illustrations had been published before" (DSB). NLM/Krivatsy 8800; Norman 1686.

Estimate: $4,000-6,000

○644

MARIOTTE, Edmé (d. 1684). *Traité du mouvement des eaux et des autres corps fluides.* Edited by Philippe de la Hire (1640-1718). Paris: Estienne Michallet, 1686.

12° (159 x 90 mm). Numerous woodcut illustrations and diagrams in text. (Some minor browning.) Contemporary calf, spine gilt (joints cracked, worn). *Provenance*: Verniquet (signature on title-page and front pastedown).

FIRST EDITION of the summation of Mariotte's work in hydrostatics. The posthumously published *Mouvement des eaux*, is a treatise in five parts, and "represents Mariotte's grand synthesis" (DSB). The first part reviews the basic properties of air and water and uses these properties, together with meteorological and geological date, to argue theat natural springs and rivers derive their water exclusively from rainfall. It also discusses wind and its origin. The second part deals with the balancing forces of fluids due to weight, elasticiy, and impact. Here he presents his five "rules of jets of water," relating to the speed of a water jet's flow to the height of the reservoir and the area of the opening. The third part is devoted to the experimental determination of the constants required for applying his theoretical rules to actual fountains. In the final parts Mariotte presents his findings on the effect of air resistance on the path and speed of projectiles, and concludes with a study of the strength of materials, especially as applied to water pipes. Although the theoretical parts of Mariotte's work were eventually superseded by Bernoullis's *Hydrodynamica* (see lot 291), it remained for many years a standard practical guide for the construction of fountains. Wolf I, pp. 312-14; Norman 1440.

Estimate: $1,000-1,500

○645

MARIOTTE, Edmé (d. 1684). *The Motion of Water, and other Fluids. Being a Treatise of Hydrostaticks ... together with a Little Treatise of the same Author, giving Practical Rules for Fountains, or Jets d'Eau.* Translated from French into English by John Theophilus Desaguliers (1683-1744). London: for J. Senex and W. Taylor, 1718.

8° (191 x 120 mm). 7 folding engraved plates. Contemporary mottled calf gilt (rebacked, corners worn). *Provenance*: John Lowthorp (d. 1724), early member of the Royal Society, and author of a paper on the refraction of air (his initials "J:L." on flyleaf [with his surname spelled-out another time and later deleted], and his marginalia throughout); H. Streatfeild, Junr. (signature on title-page).

FIRST EDITION IN ENGLISH. JOHN LOWTHORP'S COPY WITH HIS NOTATIONS THROUGHOUT. Lowthorp is referred to in this work on p. 289 as participating with Desaguliers in an experiment on water velocity. In the margin beside this account Lowthorp has written: "This is inserted without my knowledge or leave." He adds other interesting comments and corrections throughout. Norman 1441.

Estimate: $600-800

646

MARSHALL, Humphry (1722-1801). *Arbustrum americanum: the American Grove, or, an Alphabetical Catalogue of Forest Trees and Shrubs, Natives of the American United States, arranged according to the Linnaean system.* Philadelphia: Joseph Crukshank, 1785.

8° (198 x 119 mm). *Collation*: a-b^4 c^2 A-Y^4 (-Y4 blank). 97 (of 98) leaves. (Title-page browned and soiled with a few tiny chips.) Disbound, cloth slipcase.

FIRST EDITION. Marshall was a cousin of the American botanist John Bartram. His *Arbustrum americanum* publicized many of Bartram's discoveries from the Carolinas, Georgia and Florida. "His botanical garden, the second established in colonial Pennsylvania, boasted a noteworthy collection of native plants, and he contributed materially to the exportation of American plants to England and the Continent" (Norman). William Darlington, his biographer, called this work "the first truly indigenous Botanical Essay published in the Western Hemisphere" (DAB). Evans 19068; Hunt 674; Pritzel 5834; Sabin 44776; Norman 1444.

[*With*:]

STEARNS, Samuel (1741-1809). *The North-American's Almanack, and Gentleman's and Lady's Diary, for ... 1776.* Worcester: Isaiah Thomas and Cambridge: S. & E. Hall, [1775]. 8° (164 x 91 mm). (Some browning, a few marginal chips on last leaf.) Disbound. FIRST EDITION, contains an eyewitness account of the Balle of Lexington by the Rev. Wm. Gordon (possibly a pseudonym for Stearns). It also includes "Directions for preserving the health of the soldiers in the camps," and a receipt for the cure of dysentery. Drake 3260; Evans 14473; Norman 2007. — Samuel STEARNS. The American Herbal, or materia medica. Walpole [N.H.], David Carlisle for Thomas & Thomas, and the author, 1801. 12° (179 x 101 mm). (Some browning and staining.) Modern leather. FIRST EDITION of the "first herbal both produced and printed in the United States" (Norman). It also includes some American Indian remedies. Austin 1818; Garrison-Morton 1838.2; Norman 2008.

(3)

Estimate: $1,500-2,500

647

MARSIGLI, Luigi Ferdinando, Comte de (1658-1730). *Histoire physique de la mer.* Amsterdam: aux dépens de la Compagnie, 1725.

2° (361 x 235 mm). Title printed in red with engraved vignette printed in black, engraved frontispiece by M. Pool, 2 folding engraved maps, 3 engraved elevations, 6 engraved tables (all but one folding), one unsigned engraved plate, and 40 engraved plates by M. Pool. (Short tear at inner margin of frontispiece just crossing plate-mark, partial separation along inner edge of type-page on (a)1 touching some letters slightly.) Contemporary speckled calf gilt (rebacked, minor wear to corners). *Provenance*: Philip Miller (1691-1771), presumably the famous gardener and botanist who wrote *The Gardener's and Florist's Dictionary* in 1724 (contemporary signature on front pastedown).

FIRST EDITION OF THE FIRST BOOK DEVOTED ENTIRELY TO MARINE SCIENCE, and the first oceanographic study of a single region. Marsigli conducted an intensive investigation of the Gulf of Lyon in the south of France, taking soundings to obtain a profile of the sea floor, analyzing the relationship of the lands under and above the water, studying the water's physical properties and its motions, and the examining the biology of the sea, which foretold the advent of marine botany. Among the plants he numbered animals like corals, which before his time had been regarded as inorganic matter. His work prefigured the systematic oceanographic exploration that was to begin fifty years later with Cooke's famous voyage of the *Endeavour*. Nissen *ZBI* 2699; Norman 1445.

Estimate: $800-1,200

648

MARTEN, Benjamin (fl. 18th century). *A new Theory of Consumptions: More especially of a Phthisis, or Consumption of the Lungs.* London: R. Knaplock, A. Bell, J. Hooke, and C. King, 1720.

8° (197 x 121 mm). Contemporary sheep (rebacked).

FIRST EDITION. "Marten considered a parasitic micro-organism to be the cause of tuberculosis, thus forecasting the existence of the tubercle bacillus 162 years before its actual discovery" (Garrison-Morton). Garrison-Morton 3217; Osler 6730 (note); Norman 1446.

Estimate: $600-800

o649

MASCAGNI, Paolo (1755-1815). *Vasorum lymphaticorum corporis humani historia et ichnographia.* Siena: Pazzini Carli, 1787.

Broadsheets (594 x 424 mm). 41 engraved plates including 14 outline plates by Ciro Santi (few leaves with minor marginal dampstaining.) Contemporary boards, uncut (rebacked with mottled calf, calf corners). *Provenance*: Giuseppe Tossano (19th-century signature on front free endpaper).

FIRST EDITION, of one of the most beautifully illustrated medical texts. At the age of 22 Mascagni was appointed professor of anatomy at the University of Siena, and later at Pisa and Florence. "Mascagni made several notable discoveries concerning the lymphatics, and this work contains his contribution with reference to the diapedesis of the corpuscles through the wall of the blood vessels in areas of inflammation" (*Heirs of Hippocrates*). Choulant-Frank, p. 315-316; Garrison-Morton 1104; *Heirs of Hippocrates* 1099; Waller 6295; Norman 1450.

[*With*:]

MASCAGNI, Paolo. *Prodrome d'un ouvrage sur le système des vaisseaux lymphatiques...* Siena: Vincent Pazzini Carli and son, 1784.

4° (234 x 177 mm). 4 engraved folding plates (minor worming to last two plates, upper margin trimmed close in few places.) Modern vellum.

FIRST EDITION. "Mascagni wrote this prologue to his *Vasorum lymphaticorum corporis humani historia* to assure the French Academy of the priority of his discoveries and to announce the fourthcoming publication of *Vasorum*, which he intended to submit for the prize being offered by the Academy to anyone who could determine and demonstrate the system of the lymphatic vessels. Although *Vasorum* arrived late, the Academy awarded Mascagni a special prize for his remarkable achievement" (Norman). Choulant 315; *Heirs of Hippocrates* 1098; Norman 1449.

Estimate: $2,000-3,000

o650

MASKELYNE, Nevil (1732-1811). *A Proposal for measuring the Attraction of Some Hill in this Kingdom by Astronomical Observations.* London: n.p., 1776. 4° (213 x 161 mm). Collation: A^4. 4 leaves. Contemporary calf, lettering pieces on spine. FIRST EDITION. Norman 1451. — [*Bound with*:] MASKELYNE. *An Account of Observations made on the Mountain Schehallien for finding its Attraction.* London: n.p., 1776. 4°. Collation: A-F^4 (-F4 blank). 23 leaves. FIRST EDITION. Norman 1455. — [*Bound with*:] John PRINGLE (1707-1782). *A Discourse on the Attraction of Mountains, delivered at the Anniversary Meeting of the Royal Society, November 30, 1775.* London: for the Royal Society, 1775. 4°. Collation: A-D^4 (D4+1). 17 leaves (B3 misbound after D1). FIRST EDITION. Norman 1757.

Provenance: Lady Margaret Clive, Nevil Maskelyne's sister (bookplate of her and her husband, Robert Clive, and her signature on title-page dated March 1776).

RARE PAMPHLETS BELONGING TO MASKELYNE'S SISTER. Following a procedure suggested by Newton in his *Treatise on the system of the world* (1728), Maskelyne attempted to determine the density of the earth by measuring the deviations from the perpendicular produced in a plumb line by the mountain's gravitational attractions. "His results provided the first convincing demonstration of the Newtonian theory that gravitation is a universal force, operating not only between the heavenly bodies but between the elements of which each body is made" (Norman). The final paper in this collection is Pringle's address in honor of Maskelyne, who had been awarded the Royal Society's medal in 1775 for his experiments confirming Newton's theory of universal gravitation. Norman 1452.

Estimate: $1,000-1,500

651

[MATHEMATICAL SCIENCES]. — MONGE, Gaspard (1746-1818). *Géométrie descriptive. Leçons donées aux écoles normales.* Paris: Baudouin, An VII [1798/99]. 4° (254 x 203 mm). Half-title, 25 folding engraved plates by Delettre after Girard. Contemporary quarter calf and pastepaper boards, spine attractively gilt with urns, greek-key designs and other tools, speckled edges (boards rubbed). FIRST EDITION. "Monge is regarded as the creator of descriptive geometry" (Norman), for he "elegantly and methodically converted the group of graphical procedures used by practitioners into a general uniform technique based on simple and rigorous reasoning and methods" (DSB). Norman 1536. — Jean Baptiste BIOT (1774-1862). *Traité analytique des courbes et des surfaces du seconde degré.* Paris: Crapelet for Duprat, An X - 1802. 8° (198 x 127 mm). Half-title, five folding engraved plates by Duruisseau and Cloquet. Nineteenth-century half calf, gilt spines (rubbed, rehinged). *Provenance*: George Cayley (1773-1857), father of British aeronautics, signature on half-title. FIRST EDITION. Treatise in which Biot showed that "the attraction of an ellipsoid at an external point might be deduced by simple differentiations from a particular expression, which is theoretically known when the attraction is known for all points situated in the plane of one of the principal sections" (DSB). Norman 237. — Nicholas PIKE (1743-1819). *A New and Complete System of Arithmetic, Composed for the Use of the Citizens of the United States.* Newburyport: John Mycall, 1788. 8° (208 x 155 mm). Numeous woodcut diagrams, small 15-line errata slip pasted to rear endpaper (small hole in titlepage margin, scattered spotting). Contemporary plain sheep, red morocco gilt-lettered spine label (light rubbing to extremities, base of spine chipped). A good copy. FIRST EDITION of a work which became the standard textbook for American schools well into the middle of the next century. "It included sections on such advanced subjects as trigonometry, and conic sections, and was only the second mathematical textbook printed in what is now the United States to contain a chapter on algebra" (Norman). Evans 21394; Karpinski, p. 90; Norman 1698.

(3)

Estimate: $1,500-2,000

652

[MATHER, Cotton (1663-1728)]. *An account of the method and success of inoculating the small-pox, in Boston in New England. In a letter from a gentleman there, to his friend in London.* London: J. Peele, 1722.

8° (208 x 127 mm). Woodcut capitals and ornaments (blank last page pasted to a page bearing manuscript index to another work). Modern half brown morocco gilt, ENTIRELY UNCUT (boards slightly bowed).

FIRST EDITION of Mather's account of "the first widespread test of immunization recorded in the western world." Mather, a prominent Boston cleric and member of the Royal Society, "a man of science as well as religion," learned of the preventative benefits of smallpox inoculation from African slaves in Boston and from accounts by Emmanuel Timonius and Giacomo Pylarini of its use in Turkey. "When the disease broke out in Boston in 1721, he persuaded his friend Dr. Zabdiel Boylston (1680-1766) to attempt the new method and kept careful statistics of comparative mortality rate ... one of the first recorded quantitative analyses of a medical problem" (Norman). Mather's results, clearly demonstrating the advantage of inoculation, were communicated in a letter (dated September 7, 1721) to Jeremiah Dummer and published with a prefatory letter to Sir Hans Soane, president of the College of Physicians. Mather's pioneering attempts "led to the eventual adoption of inoculation in both Europe and America." Garrison-Morton 5414; *Heirs of Hippocrates* 718; Holmes *Cotton Mather* 3; Sabin 46213; Wellcome IV, p. 78; Norman 1455.

Estimate: $3,500-4,500

○653

[MATHER, Cotton (1663-1728)]. *A vindication of the ministers of Boston, from the abuses & scandal lately cast upon them, in divers printed papers.* Boston: B. Green for Samuel Gerrish, 1722.

8° (172 x 112 mm). (Title slightly cropped at top, just shaving portion of rule border, last leaf partially detached). Disbound. *Provenance*: Library of the Surgeon General's Office (oval stamp on title and withdrawn for exchange on A2r.

FIRST EDITION of this anonymous response to attacks on Mather and other ministers in Boston who supported the successful test of the practice of inoculation for smallpox undertaken at Mather's urging during the 1721 Boston epidemic (see note lot 652). The ministers, who included Cotton, his father Increase Mather, Benjamin Colman, William Cooper and others, had been the subject of violent editorials in the *New England Courant*, published by James Franklin and the 16-year-old Benjamin Franklin. Mather and Boylston, the doctor who performed the inoculations, were attacked by a mob, and a bomb was thrown into Mather's study before the controversy finally subsided.

Austin 1980; Evans 2396; Guerra a-76; Holmes *Cotton Mather* 530; Norman 1456.

Estimate: $1,800-2,500

○654

[MAUPERTUIS, Pierre Louis Moreau de (1698-1759)]. *La figure de la terre, déterminée ... par les observations au cercle polaire*. Paris: Imprimerie Royale, 1738. 8° (196 x 122 mm). Folding engraved map and 9 folding engraved plates. (Some very light marginal dampstaining.) Contemporary sprinkled calf, spine gilt. *Provenance*: Léon Duchesne de la Sicotière (bookplate). FIRST EDITION containing the results of the geodetic expedition he led to Lapland to measure a degree of meridian at the polar circle. Wellcome IV, p. 175; Norman 1458 — MAUPERTUIS. *Dissertation physique à l'occasion du nègre blanc*. Leiden: n.p., 1744. 8° (160 x 100 mm). Contemporary mottled calf, spine gilt. *Provenance*: "Tiffeyre" (signature on front flyleaf). FIRST EDITION of Maupertuis' research into the mechanics of human genetics. "Stimulated by the much talked about appearance of an albino negro in Paris, Maupertuis expressed theories of biparental heredity and epigenesis which substantially anticipated those of Darwin, Mendel, and De Vries nearly a century and a half later" (Garrison-Morton). Garrison-Morton 215.1; Norman 1459 — MAUPERTUIS. *Venus physique*. N.p.: 1744. 12° (161 x 90 mm). Original paper-backed boards, title ink-lettered on spine and front cover, uncut; cloth folding case. *Provenance*: Guiven (signature on divisional title). FIRST EDITION of Maupertuis' more fully analyzed argument against the the biological theory of the preformation of the embryo. Based on research performed shortly after his arrival in Berlin in 1740, he argued that biparental heredity required corporeal contributions from each parent. The first part reprints his *Dissertation physique à l'occasion du nègre blanc* (1744, see above). Garrison-Morton 215.2; *Heirs of Hippocrates* 847; Osler 3350; Norman 1460. — PICARD, Jean (1620-1682). *Dégré du méridien entre Paris et Amiens, déterminé par la mesure de M. Picard, et par les observations de Mrs. de Maupertuis, Clairaut, Camus, le Monnier, de l'Académie Royale des Sciences*. Paris: G. Martin, J.B. Coignard, and H.L. Guerin, 1740. 8° (193 x 121 mm). 8 folding engraved plates by D'Heulland. 18th-century French red morocco gilt, edges gilt. FIRST EDITION, includes a reprint of Picard's *Mesure de la terre* (1671), in which he had precisely determined the length of a degree of meridian based upon measurements of the distance between Paris and Amiens. Norman 1695.

(4)

Estimate: $1,000-1,500

655

MAURICEAU, François (1637-1709). *Des maladies des femmes grosses et accouchées.* Paris: Charles Coignard for the Author, Jean d'Houry and Robert de Ninville, 1668.

4° (240 x 172 mm). Engraved title and 30 engraved illustrations in text (light marginal staining at beginning and minor dampstaining at end.) Contemporary mottled calf, spine gilt; cloth folding case. *Provenance*: Coleviler (old signature on front fly-leaf).

FIRST EDITION. "THIS BOOK ESTABLISHED OBSTETRICS AS A SCIENCE. The outstanding textbook of the time. Mauriceau, leading obstetrician of his day, introduced the practice of delivering his patients in bed instead of in the obstetrical chair" (Garrison-Morton). *En francais dans le texte* 107; Garrison-Morton 6147; Grolier *Medicine* 33; *Heirs of Hippocrates* 604 (2nd. Edition); NLM/Krivatsy 7588; Wellcome IV, p. 85; Norman 1461.

Estimate: $1,000-1,500

656

MAURICEAU, François (1637-1709). *Observations sur la grossesse et l'accouchement des femmes, et sur leurs maladies & celles des enfans nouveau-nez.* Paris: chez l'auteur, 1695.

4° (206 x 150 mm). Contemporary mottled calf (upper joint cracked, light wear to edges). *Provenance*: Ms. Echevin (? signature on blank leaf at end).

First separate edition. A collection of 700 case histories dealing with pregnancy and childbirth as well as with diseases and problems of the newborn. NLM/Krivatsy 7601; Norman 1462.

Estimate: $1,000-1,500

657

MAYER, Johann Tobias (1723-1762). *Tabulae motuum solis et lunae novae et correctae... quibus accedit methodus longitudinum promota.* Edited by Nevil Maskeleyne (1732-1811). London: William and John Richardson for John Nourse, John Mount and Thomas Page, 1770.

4° (267 x 217 mm). 2 parts in one, part 1 ("Methodus longitudinum promota") in Latin and English, part 2 (the letterpress tables and "Papers relative to the...tables") separately paginated, 2 folding engraved plates, contents and errata leaf at end. The errata corrected throughout the text (as often) in a contemporary hand. (Some mostly light dampstaining, marginal tears to O1 and Cc2.) Contemporary tree calf (rebacked). *Provenance*: Margaret Maskelyne (1786-1858), daughter of the editor (bokoplate).

FIRST EDITION. In 1752 Mayer, a cartographer and astronomer, "drew up new lunar and solar tables, in which he attained an accuracy of ±1', an achievement attributable to his skillful use of observational data, rather than to the originality of his theory or the superiority of his instruments" (DSB). He sent a copy of the tables in 1755 to the Lords Commissioner of the British Admiralty, hoping to receive the prize promised by the Act of Parliament of 12 November 1713 to anyone who could solve the age-old problem of devising a method for determining longitude at sea (see lot 629). Although he failed to win the prize, Mayer continued to improve the tables until his death in 1762, and in 1763 his widow submitted a copy of the revised tables to the Board of Longitude, who deemed the improved tables sufficiently useful to grant her a prize of £3000. The astronomer Nevil Maskelyne had used Mayer's tables successfully in 1761 on a mission to St. Helena, in order to determine the reliability of the lunar distance method for determining longitude at sea, and Maskelyne assumed the responsibility of editing the tables and supervising their publication. "They were used to compute the lunar and solar ephemerides for the early editions of the *Nautical Almanac.* (They were superseded a decade later by tables employing essentially the same principles, but based upon the newer and more accurate observational data that were gradually being assembled at the Royal Observatory at Greenwich)" (DSB). Sotheran I, 2934-5; Norman 1468.

Estimate: $2,000-3,000

658

MAYOW, John (1641-1679). *Tractatus quinque medico-physici.* Oxford: Sheldonian Theatre, 1674.

8° (179 x 113). Engraved portrait, 6 folding engraved plates. Contemporary mottled calf gilt (rebacked, preserving original gilt spine and red leather label).

FIRST EDITION, including revisions of two treatises (*De respiratione* and *De rachitide*) first published in 1668, and three new works, including his most celebrated work, *De sal-nitro et spiritu nitro-aereo*, on combustion, respiration, the composition of the atmosphere, and aerial-nitrate. He proved what both he and Hooke contended, that only a portion of air is used in respiration and combustion, by demonstrating that air in an enclosed space, when burned or breathed, is reduced only by one fourteenth. He also discovered that the muscles were the source of animal heat, and the double-articulation of the ribs with the spine. "[Mayow's] *Tractatus*, embodying all his brilliant conclusions, is one of the best English medical classics" (Garrison-Morton 578). NLM/Krivatsy 7653; Waller 6392; Wellcome IV, p. 93; Wing M-1537; Norman 1474.

Estimate: $1,000-1,500

659

MEAD, Richard (1673-1754). *De imperio solis ac lunae in corpora humana, et morbis inde oriundis.* London: Raphael Smith, 1704. 8° (190 x 112 mm). (Some very minor occasional soiling to text). Contemporary panelled tooled calf, red leather spine label. *Provenance*: Dr. Ramsay (gift inscription from Archibald Pitcairne (1652-1713), fellow of the College of Surgeons, Edinburgh from 1701, cited in Mead's work). FIRST EDITION. A leading influence on Mesmer's works (see lots 688-673), Mead emphasised the effects of atmospheric tides on the human nervous system. Norman 1475. — MEAD. *A short discourse concerning pestilential contagion and the methods to be used to prevent it.* London: Sam Buckley and Ralph Smith, 1720. 8°. Contemporary red morocco gilt, gilt edges. *Provenance*: engraved armorial bookplate. FIRST EDITION. "Almost a prophecy of what was to develop as the English public health system" (Garrison-Morton 5123). Norman 1476. — *Museum Meadianum sive, catalogus nummorum, veteris aevi monumentorum ac gemmarum, cum aliis quibusdam artis recentioris et naturae operibus; quae vir clarissimus Richardus Mead, M.D. nuper defunctus comparaverat - Pars prior; Pars altera.* London: A. Langford and S. Baker, 1755. 8° (198 x 121 mm). Half red morocco gilt, green spine label, marbled boards, FIRST EDITION. Norman 1477. — [*Bound with*:] *Bibliotheca Meadiana, sive catalogus librorum Richardi Mead, M.D. qui prostabunt venales sub hasta ... 18 Novembris, MDCCLIV ... 7 Aprilis, MDCCLV.* London: n.p., n.d. 8°. *Provenance*: Some prices marked in ink, in a contemporary hand. FIRST EDITION. Catalogue of English Book Sales 1676-1900 in the British Museum, pp. 65-66; Norman 1478. — [*Bound with*:] *A catalogue of the genuine, entire, and curious collection of prints and drawings, (bound and unbound) of the late Doctor Mead.* London: n.p., n.d. 8°. FIRST EDITION. Norman 1479. — [*Bound with*:] *A catalogue of the genuine and capital collection of pictures, by the most celebrated masters, of that great and learned physician, Dr. Richard Mead, dec. ... which were sold by auction ... with the price which each lot sold for annexe.* London: n.p., n.d. 5 sheets, trimmed and mounted. FIRST EDITION. Norman 1480.

(3)

Estimate: $1,000-2,000

5660

MÉCHAIN, Pierre-François-André (1744-1804) and Jean Baptise Joseph DELAMBRE (1749-1822). *Base du système métrique décimal, ou mesure de l'arc du méridien.* Paris: Baudouin for Garnery, 1806-10.

3 volumes, 4° (252 x 197 mm). 28 folding engraved plates by E. Collin. (Lacking half-titles.) 19th-century light brown straight-grained calf gilt (spines rubbed). *Provenance*: W.A. (gift inscription on front flyleaf in vol. 1: "This book was a present to me from my friend Col. Hamilton. Hyderabad, December 15 1815 / W.A.").

RARE FIRST EDITION OF THE FOUNDATION OF THE METRIC SYSTEM. In 1790, at the request of Talleyrand, the Académie des Sciences set up a commission to consider the problem of finding a fundamental unit of measurement to replace the various diverse regional systems that had been in use throughout Europe for centuries. The members of the commission included J.C. Borda, Lagrange, Laplace, G. Monge and Condorcet. "In 1791 they reported that the fundamental unit of length should be derived from a dimension of the earth: it should be the ten-millionth part of a quadrant of the earth's meridian extending between Dunkirk and Barcelona ... The Constituent Assembly set up a general commission of weights and measures to carry these proposals into effect and in 1795 a law was passed introducing the metric system into France with provisional standards" (PMM). The astronomers Delambre and Méchain were appointed to make accurate measurements of the meridian passing through Dunkirk and Barcelona, and their measurements were completed in 1799. The project had numerous delays, including France's political revolution, the tedious calculations in converting one system to another, and the death of Méchain in 1804. Delambre completed the final volume of their report in 1810. PMM 260; Norman 1481.

[*With*:]

BIOT, Jean-Baptiste (1774-1862) and François ARAGO (1786-1853). *Recueil d'observations géodésiques.* Paris: Courcier, 1821. 4° (253 x 196 mm). 2 folding engraved plates. Uniformly bound with above set in 19th-century straight-grained calf gilt. FIRST EDITION of the supplementary volume to the above, which includes Biot and Arago's completion of Méchain's measurement of the arc of the meridian in Spain and the Balearic Islands, left incomplete at his death. It also includes measurements taken in France, England and Scotland. Norman 1481. (4)

Estimate: $8,000-12,000

5661

MECKEL, Johann Friedrich (1724-1774). *Tractatus anatomico-physiologicus de quinto pare nervorum cerebri.* Göttingen: A. Vandenhoeck, 1748.

4° (229 x 185 mm., uncut). 2 engraved folding plates (some browning, a few gatherings becomming loose.) Contemporary plain blue wrappers (chipping and splitting to edges).

Provenance: Friedrich Eduard Voltolini (the University of Breslau's first professor of otolaryngology, signature on title page); Schlosser (signature on title page); Edward Clark Streeter (bookplate); Logan Clendening (bookplate and withdrawal stamp of the Clendening Medical Library).

FIRST EDITION, of Meckel's graduation thesis. It includes the classic description of the sphenopalatine ("Meckel's") ganglion and the dural space lodging the Gasserian ganglion ("Meckel's cave"). Meckel is often called "The Elder" to distinguish him from his grandson. A VERY RARE NEUROANATOMY ITEM. Garrison-Morton 1249; *Heirs of Hippocrates* 958; Waller 6408; Wellcome IV, p. 98; Norman 1482.

Estimate: $2,000-3,000

BASE

DU SYSTÈME MÉTRIQUE DÉCIMAL,

OU

MESURE DE L'ARC DU MÉRIDIEN

COMPRIS ENTRE LES PARALLÈLES
DE DUNKERQUE ET BARCELONE,

EXÉCUTÉE EN 1792 ET ANNÉES SUIVANTES,

PAR MM. MÉCHAIN ET DELAMBRE.

Rédigée par M. Delambre, Chevalier de l'Empire, Trésorier de l'Université Impériale, Secrétaire perpétuel de l'Institut pour les Sciences mathématiques, Professeur d'Astronomie au Collége de France, Membre du Bureau des longitudes, de l'Académie Napoléon, des Sociétés royales de Londres, d'Upsal et de Copenhague, des Académies de Saint-Pétersbourg, de Berlin et de Suède, de la Société Italienne et de celle de Gottingue, et Membre de la Légion d'honneur.

TOME TROISIÈME.

PARIS.
BAUDOUIN, IMPRIMEUR DE L'INSTITUT DE FRANCE.

NOVEMBRE 1810.

5662

[MEDICAL JURISPRUDENCE] — HALE, Matthew (1609-1676). *Historia placitorum coronae. The history of the pleas of the Crown.* Edited by Sollom Emlyn (1697-1754). [London] In The Savoy: E. & R. Nutt, and R. Gosling, for F. Gyles, T. Woodward, and C. Davis, 1736. 2 volumes. 2° (310 x 199 mm [Vol. 1]; 309 x 196 mm [Vol. 2]). Frontispiece engraving of Matthew Hale, dated 1735, by George Vertue, after Michael Wright [Vol. 1] (top of engraving shaved, light browning to some of text [Vol. 1]). Contemporary calf, leather spine labels (joints splitting [Vol. 1]). *Provenance*: Cornwell House (stamp on front free endpapers of both volumes); "Dec 1 1752" and price of 1.1.0 inscribed on front free endpaper; occasional early marginalia. FIRST AUTHORIZED EDITION. Hale was a prominent lawyer under the Protectorate and in Restoration England, rising to be serjeant at law, and Lord Chief Baron of the Exchequer. Incomplete and unofficial copies of *Pleas of the Crown* circulated from his death in 1676, but the 1736 edition was the first accurate and authorized edition. Hale's opinions on insanity appear in Volume 1, and follow Jean Bodin's distinction between medically and legally defined insanity. He allowed for "partial" or "temporary" insanity, which did not fully absolve a criminal from responsibility; only total insanity, defined as "total deprivation of memory and understanding," could do that. Norman 968. — HALE. *Historia placitorum coronae. The history of the pleas of the Crown.* Edited by Sollom Emlyn (1697-1754). [London] In The Savoy: E. & R. Nutt, and R. Gosling, for F. Gyles, T. Woodward, and C. Davis, 1736. 2 volumes. 2° (387 x 242 mm). Frontispiece portrait engraving of Matthew Hale, dated 1735, by George Vertue after Michael Wright (slightly foxed, offsetting from engraving to title page, some light foxing and browning to text, very minor worming to some pages, not affecting text. Contemporary calf (rebacked, corners repaired, covers worn). *Provenance*: A. Peacock (inscription) [Vols. 1 & 2]. Norman 969. — Michael DALTON (d. 1648?). *The countrey justice, containing the practice of the justices of the peace out of their sessions: gathered for the better helpe of such justices of peace as have not been much conversant in the studie of the lawes of this realme.* London: John More, 1630. 2° (280 x 185 mm). (Staining to gutter throughout; some occasional minor marginal worming, not affecting text. Contemporary calf, red leather spine label. *Provenance*: R.W. Wyme (inscription); Kirkleatham Library (18th-century bookplate); inscription on front free endpaper "Vivitur legibus non exemplis," occasional marginalia and paper shelfmark label "E 11.9" on spine. Fifth edition. STC 6209; Norman 576. — Antoine LOUIS (1723-1791). *Mémoire sur une question anatomique relative à la jurisprudence; dans lequel on établit les principes pour distinguer, à l'inspection d'un corps trouvé pendu, les signes du suicide d'avec ceux de l'assassinat.* Paris: P.G. Cavelier, 1763. 8° (195 x 125 mm). (Occasional light foxing). Original blue paper wrappers. FIRST EDITION. Louis was a pioneer of French medical jurisprudence. This paper describes the physical differences to be seen between cases of hanging as suicide and as murder. Garrison-Morton 1730; Wellcome III, p. 550; Norman 1394. — LOUIS. *Mémoire contre la légitimité des naissances prétendues tardives ...* Paris: P.G. Cavelier, 1794. 8° (198 x 124 mm). Modern boards. FIRST EDITION. Louis described the natural term of a human pregnancy, and so excluded the possibilities of 13 or 14 month pregnancies which were sometimes being accomodated for in courts ruling on matters of legitimacy. Garrison-Morton 1731; Wellcome III, p. 550; Norman 1395.

Estimate: $2,000-3,000

5663

[MEDICINE]. — WILLIS, Thomas (1621-1675). *The London Practice of Physick...* London: Thomas Basset and William Crooke, 1685. 8° (182 x 113 mm). Engraved portrait frontispiece (light staining.) Contemporary calf, gilt lettered red leather spine label. *Provenance*: Rob. Monk (contemporary signature on front free endpaper). FIRST EDITION. NLM/Krivatsy 13042; Wing W-2838; Norman 2249. — Charles LEPOIS [Carolus PISO] (1563-1633). *Selectiorum observationum et consiliorum de praeteruisis hactenus morbis affectibus que praeter naturam ab aqua, seu serosa colluuie & diluvie ortis liber singularis.* Pont-à-Mousson: Charles Marchand, 1618. 4° (233 x 161 mm). Contemporary calf (some rubbing). FIRST EDITION. NLM/Krivatsy 6903; Norman 1332. — Lazare RIVIÈRE (1589-1655). *Institutiones medicae.* Lyon: Antoine Cellier, 1656. 4° (216 x 151 mm). Engraved portrait frontispiece, title printed in red and black with engraved title vignette, 5 folding tables. NLM/Krivatsy 9702; Norman 1836. — [*Bound with*]: *Observatioum Medicarum.* Lyon: Antoine Cellier, 1659. Engraved title vignette. NLM/Krivatsy 9718; Norman 1837. — Isaak VOSS (1618-1689). *Variarum observationum liber.* London: Robert Scott, 1685. 4° (226 x 171 mm). Contemporary calf (rebacked). FIRST EDITION. "Voss was one of the first European writers to suggest that the Chinese had anticipated William Harvey's discovery of the circulation of blood" (Norman). NLM/Krivatsy 12499; Wing V-707; Norman 2168. — John AIKIN (1747-1822). *Biographical Memoirs of Medicine in Great Britain.* London: J. Johnson, 1780. 8° (210 x 126 mm). Contemporary speckled calf. FIRST EDITION. Garrison-Morton 6705; Wellcome II, p. 19; Norman 26. — John FERRIAR. (1761-1815). *Medical Histories and Reflections.* Warrington and London: Eyres, 1792-1798. 3 volumes, 8° (211 x 125 mm). Contemporary tree sheep (light wear to spines). *Provenance*: Library of the Medical-Chirurgical Society of Aberdeen (ink notation on front paste-down). FIRST EDITION. Norman 789. — John Redman COXE (1773-1864). *An Inaugural Essay on Inflammation.* Philadelphia: Aiken, 1794. 8° (189 x 118 mm). Disbound. FIRST EDITION. Norman 532. — [PHARMACOPOEIA]. *The Pharmacopoeia of the Massachusetts Medical Society.* Boston: E.J. Larkin, 1808. 8° (192 x 114 mm., uncut). Contemporary green boards (broken). FIRST EDITION. Norman 1690. — [PHARMACOPOEIA]. *The Pharmacopoeia of the United States of America.* Boston: Wells and Lilly for Charles Ewer, 1820. 8° (234 x 144 mm., uncut). Contemporary boards (rebacked). *Provenance*: R.W. Drapper (contemporary signature on front paste-down). FIRST EDITION. Garrison-Morton 1845; Norman 1691.

(11)

Estimate: $2,000-3,000

o664

[MEDICINE, ENGLAND, 17TH CENTURY] — SHORT, Richard (d.1668). περι ψγξροποσιασ, *Of drinking water, against our novelists that prescribed it in England: Whereunto is added* περι θερμοποσιασ, *Of Warm Drink*. London: John Crooke, 1656. 8° (145 x 192 mm). Contemporary blind-ruled sheep (rebacked, covers worn). *Provenance*: A.F. Waring of Lurwood, (inscription, 1766, occasional marginalia in the same hand); A.L.S (bookplate). FIRST EDITION. Wing S-3528; Norman 1943. — Gideon HARVEY (1640?-1700?). *The art of curing diseases by expectation: With remarks on a supposed great case of apoplectick fits.* London: James Partridge, 1689. 12° (147 x 81 mm). Half calf antique, marbled boards. *Provenance*: H. Cotton (inscription). FIRST EDITION. A broad attack on medical practices of the day. Wellcome III, p. 218; Wing H-1056; Norman 1005. — Leonardo LESSIUS (1554-1623), Luigi CORNARO (1467-1566), and "A Famous Italian". *The temperate man, or the right way of preserving life and health, together, with soundness of senses, judgement and memory unto extreme old age. In three treatises.* [Translated by "T.S" (possibly Nicholas Ferrar (1592-1637)), and George Herbert (1593-1633)]. London: J.R. for John Starkey, 1678. 12° (141 x 73 mm). Contemporary mottled calf, gilt spine, red leather spine label. Fourth edition in English of this collection (check). Wellcome III, p. 499; Wing L-1181; Norman 1337. [Bound with:] — Santorio SANTORIO (1561-1636). *Medicina statica: or, the Rules of Health.* London: John Starkey, 1676. Translated by John Davies (1627?-1693). 12° (141 x 73 mm). Second edition in English, first edition of Davies' translation. Wing S-571; Norman 1892. — [Marchamont NEEDHAM (1620-1678)]. *Medela medicinae. A plea for the free profession and a renovation of the art of physick.* London: for Richard Lownds, 1665. 8° (153 x 103 mm). (Title-page soiled; top margins shaved, just touching title on some pages. Very minor worming, not affecting text). Calf antique, gilt-lettered leather spine label. *Provenance*: Henry Hall (inscription). FIRST EDITION. One of the earliest English works on germ theory, and including notes on Kircher's experiments with the microscope. Garrison-Morton 2529; Wing N-397; Norman 1578. — John PECHEY (1655-1716). *Promptuarium praxeos medicae. seu, methodus medendi, praescriptis celeberrimorum Medicorum Londinensium concinnata. Et in ordinem Alphabeticum digesta.* London: Henry Bonwicke, 1693. 12° (133 x 79 mm). Contemporary blind-panelled calf (worn). *Provenance*: early marginalia and inscriptions on endpapers, 1696 and 1711. FIRST EDITION. A dictionary of medical recipes. Wing P-1028; Norman 1675. — [Bound with:] Thomas SYDENHAM (1624-1689). *Processus integri in morbis fere omnibus curandis.* London: Sam. Smith & Benj. Walford, and Ja. Knapton, 1693. 12° (133 x 80 mm). FIRST EDITION. A compendium of medicines, arranged according to diseases. NLM/Krivatsy 11629; Wing S-6316; Norman 2042.

(5)

Estimate: $2,000-3,000

665

MEDICO, Giuseppe del. *Anatomia per uso dei pittori e scultori.* Rome: Vincenzo Poggioli, 1811.

2° (511 x 343 mm., uncut). 38 engraved plates, including 19 printed in 2 colors and 3 printed in 3 colors (some dampstaining to upper right corner.) Contemporary half calf and marbled boards (some light wear to edges).

FIRST EDITION. An anatomy for artists and sculptors, with 38 engraved plates. The bones are illustrated in black, the muscles, arteries and internal organs in sanguine, and the veins in blue. Choulant-Frank, p. 331; Garrison-Morton 406; *Heirs of Hippocrates* 1166; Norman 1484.

Estimate: $800-1,200

666

[MENTAL ILLNESS, ENGLISH] — CHEYNE, George (1671-1743). *The English malady: Or a treatise of nervous diseases of all kinds, as spleen, vapours, lowness of spirits, hypochondriacal and hysterical distempers, &c* . London: for G. Strahan, and J. Leake (Bath), 1733. 8° (193 x 118 mm). (Some browning and occasional foxing to text). Contemporary panelled calf, rebacked preserving original spine and leather label. *Provenance*: Ratouis (inscription). FIRST EDITION. A study of depression and hypochondria, including the author's own case and his cure. The melancholia is attributed to the English climate and an unhealthy lifestyle of too much alcohol and meat, and insufficient exercise. Garrison-Morton 4840; Wellcome II, p. 339; Norman 471. — Nicholas ROBINSON (1697-1775). *A new system of the spleen, vapours, and hypochondriack melancholy: wherein all the decays of the nerves and lownesses of the spirits are mechanically accounted for.* London: A. Bettesworth, W. Innys, and C. Rivington, 1729. 8° (195 x 112 mm). Title printed in red and black. (Tear to E5, not affecting text). Contemporary gilt-ruled calf, red leather spine label (some wear to covers). *Provenance*: P. Ditchell (inscription); engraved bookplate. FIRST EDITION. A rigorous distillation of all psychological disturbances as symptoms of physical changes to the nerves and brain. Norman 1838. — William PERFECT (1737-1809). *Select cases in the different species of insanity, lunacy, or madness, with the modes of practice as adopted in the treatment of each.* Rochester: for W. Gillman, J. Murray, and J. Bew, 1787. 8° (203 x 129 mm). 19th century gilt-ruled half blue morocco, gilt spine, top edge gilt, marbled boards. *Provenance*: Charles W. Pilgrim (bookplate). Third edition. The first collection of psychiatric case material, recording 18th-century diagnoses and treatments. Norman 1682. — William PERFECT. *A remarkable case of madness, with the diet and medicines used in the cure.* Rochester: for the author, to be sold by W. Gilman, J. Murray, J. Evans, and C. Forster, 1791. 8° (193 x 125 mm). Errata slip tipped in on G4. (Occasional light foxing). Disbound. FIRST EDITION. A record of a case of madness in a young boy, and his cure, with an appendix of 2 other cases. Norman 1683. — Philip GOODWIN (d.1699). *The mystery of dreames, historically discoursed.* London: A.M for Francis Tyton, 1658. 8° (167 x 108 mm). Contemporary gilt-ruled calf (rebacked, edges worn). *Provenance*: Charles, Viscount Bruce of Amphill (engraved armorial bookplate); Edgar F. Leo (bookplate). FIRST EDITION. Goodwin was the first to consider that dreams might cast light on a person's state of mind. NLM/Krivatsy 4887; Wing G-1217; Norman 917. — Sir Richard BLACKMORE (1653-1729). *A treatise of the spleen and vapours: Or, hypocondriacal and hysterical affections.* London: J. Pembertone: 1725. (Tear to c1, not affecting text. Occasional very minor worming, not affecting text). Contemporary panelled, blind-tooled calf, gilt spine. *Provenance*: Richard Vaughan (engraved armorial bookplate). FIRST EDITION. Blackmore suggested that mental disorders were more related than had been assumed when they were treated as isolated and distinct diseases. Wellcome II, p. 173; Norman 240. — John PURCELL (1674?-1730). *A Treatise of vapours or hysterick fits.* London: for H. Newman and N. Cox, 1702. 8° (183 x 112 mm). (Titlepage soiled). Contemporary blind-ruled sheep (broken). *Provenance*: Rt. Hon. George Rose (engraved armorial bookplate). FIRST EDITION. Purcell agreed with Sydenham that hysteria occurs in both sexes, and with Willis that hysteria is not caused by the uterus. Norman 1762. — Thomas BOWEN (1749-1800). *An historical account of the origin, progress and present state of Bethlem Hospital, founded by Henry the Eighth for the cure of lunatics.* London: [n.p.]. 1783. 4° (272 x 211 mm). Engraved frontispiece by W. Sharp after Thomas Stothard (1755-1834), extra-illustrated with 3 other engravings, and with manuscript notations and press cuttings tipped in (frontispiece and 1 other engraving foxed). Later boards, cloth spine. *Provenance*: Sir Richard Burton (1821-1890), explorer, anthropologist and translator (bookplate); D.A.H. Moses (bookplate). FIRST EDITION. Wellcome II, p. 217; Norman 293. — William FALCONER (1744-

1824). *A dissertation on the influence of the passions upon disorders of the body*. London: for C. Dilly, and J. Phillips, 1788. 8° (203 x 130 mm). (Occasional and very minor foxing). Quarter calf antique, marbled boards. FIRST EDITION. The first psychiatric prize essay, which won the first Fothergillian Medal, on the question of the part played by the emotions in connecting the mind and body. Wellcome III, p. 7; Norman 756.— Alexander ANDERSON (1775-1870). *An inaugural dissertation on chronic mania*. New York: T. & J. Swords, 1796 8° (185 x 114 mm). (Some minor browning and foxing). 19th-century quarter blue calf, marbled boards (rebacked, preserving original gilt-lettered spine). *Provenance*: Surgeon General's Office Library (bookplate, stamp, NLM withdrawal stamps). FIRST EDITION. Anderson is better-known as the first American to produce engravings on wood. He was persuaded to study medicine as amore secure career, but after only a few years returned to his life's work as an engraver. Norman 52. Andrew HARPER (d. 1790). *The Oeconomy of health; or, a medical essay containing ... instructions for the attainment of health, happiness and longevity*. London: for the author, sold by C. Stalker [1789?]. 4° (198 x 123 mm). Disbound. FIRST EDITION. All works by Harper are extremely rare. Wellcome III, p. 211; Norman 989. — Andrew HARPER. *A treatise on the real cause and cure of insanity*. London: for C. Stalker and J. Walter, 1789. 8° (198 x 120 mm). Disbound. FIRST EDITION. Wellcome III, p. 211; Norman 990.

(12)

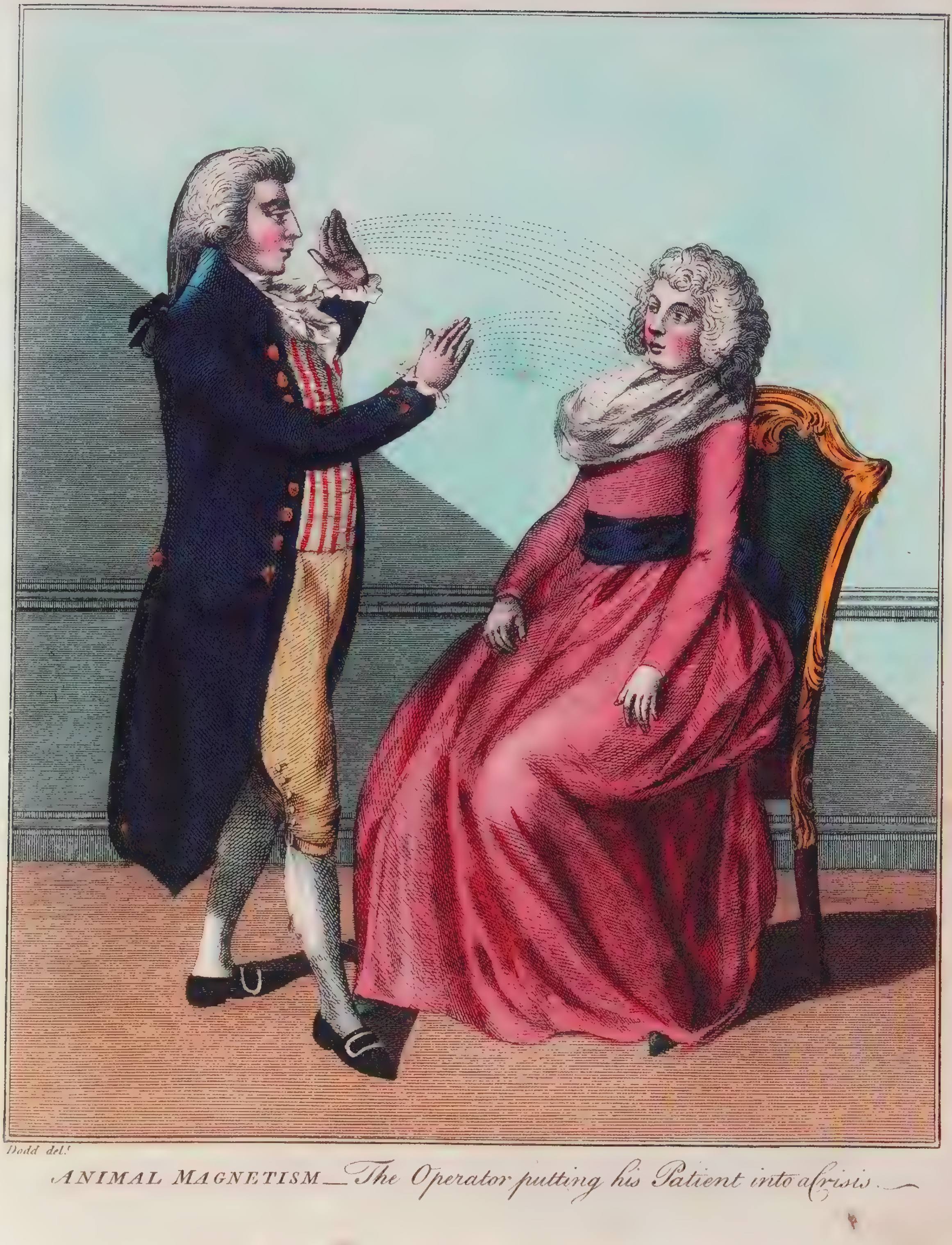
Estimate: $3,000-4,000

o667

[MENTAL ILLNESS, FRENCH]. — TAXIL, Jean (fl. 1602-1608). *Traicté de l'epilepsie, maladie vulgairement appellée au païs de Provence la goutette aux petits enfans*. Lyons: for Robert Renaud, 1603. 8° (173 x 108 mm). Engraved title, engraved portrait of the author on tt4v. Contemporary vellum (chipped). *Provenance*: Baudiben (signature dated 1618 on title-page); early signature on title-page; Jules Falret (1824-1902), famous 19th-century psychiatrist and neurologist who wrote on epilepsy (ink stamp on title-page). FIRST EDITION, second issue, with title dated 1603. "Taxil refuted the Galenic theory of epilepsy as humoral obstruction of the ventricles through post-mortems on several children who had died of epilepsy" (Norman 2057). — Charles LEPOIS (1563-1633). *Selectiorum observationum et consiliorum de praetervisis hactenus morbis affectibusque praeter naturam, ab aqua seu serosa colluvie et diluvie ortis, liber singularis.* Edited by Herman Boerhaave (1668-1738). Leiden: the widow and son of C. Boutesteyn and J.A. Langerak, 1714. 4° (214 x 165 mm). Later vellum, uncut. *Provenance*: Prince of Liechtenstein (bookplate). First Boerhaave edition. Lepois refuted the ancient and long-held belief that the seat of hysteria was in the uterus. He also maintained that hysteria was equally common to both men and women. Norman 1333. — Robert WHYTT (1714-1766). *Traité des maladies nerveuses, hypocondriaques et hystériques ... a laquelle on a joint un extrait d'un ouvrage anglois du même auteur, sur les mouvements vitaux & involontaires des animaux.* Translated from English into French. Paris: P.F. Didot jeune, 1777. 2 volumes, 12° (166 x 97 mm). Contemporary French mottled sheep gilt (joints cracked or starting). *Provenance*: Philippe Pinel (1745-1826), psychiatrist who founded the Salpêtrière school of psychiatry and trained a generation of psychiatrists, including J.E.D. Esquirol (inscription on front flyleaf of Vol. 1: "Pinel / ce livre appartient a Pinel"). Second French edition (the first French edition appeared in 1767). IMPORTANT ASSOCIATION COPY. Norman 2239. — [Jean COLOMBIER (1736-1789)]. *Instruction sur la manière de gouverner les insensés, et de travailler à leur guérison dans les asyles qui leur sont destinés.* Paris: Imprimerie Royale, 1785. 4° (227 x 174 mm). Modern boards. *Provenance*: M. Chupies? (early signature on title, shaved). FIRST EDITION of Colombier's work on the care for the insane, written by order of Louis XVI. Zilboorg-Henry, pp. 316, 321 and 571; Norman 500. — Joseph DAQUIN (1733-1815). *La philosophie de la folie.* Chambéry: chez Gorrin, 1791. 8° (226 x 125 mm). Contemporary mottled half sheep. FIRST EDITION. Daquin "was the first to recognize the mental hospital's dual role as a place for treatment and, equally importantly, a place for psychiatric teaching and research" (Norman). Zilboorg-Henry, pp. 317-18; Norman 580. — Joseph DAQUIN. *La philosophie de la folie, ou l'on prouve que cette maladie doit plutôt être traitée par les secours moraux que par les secours physiques.* Chambéry: P. Cléaz, 1804. 8° (228 x 134 mm). Modern quarter tree calf gilt, original plain brown wrappers bound-in, uncut. Second edition, expanded and dedicated to his younger contemporary Philippe Pinel (see provenance note of Whytt above). Zilboorg-Henry, p. 318; Norman 581. — Jacques Louis MOREAU DE LA SARTHE (1771-1826). *Quelques observations sur différentes maladies...* Paris: Croullebois and Gabon, 1798/99. 8° (193 x 119 mm). Modern wrappers. FIRST EDITION of this pamphlet which includes a discussion of epilepsy, consumption, and the curative powers of emotion. Norman 1544.

(8)

Estimate: $1,500-2,500



Dodd del.^t

ANIMAL MAGNETISM_ *The Operator putting his Patient into a Crisis.*_

Franz Anton Mesmer (1734-1815) first promoted his theory of animal magnetism in his doctoral thesis. He claimed that the 'tides' produced by the effects of gravity on the planets influenced the spirits and nervous fluids of the body, drawing heavily on - and even plagiarising - the work of Richard Mead (1673-1754) *De imperio solis ac lunie in corpora humana*, (see lot 659, Norman 1475). Mesmer associated this "animal gravitation" with health, and physical soundness was the result of "harmony" between the organs of the body and the planets.

Mesmerism presented itself to the French as a "natural" medicine at a time when the cult of nature and the popular enthusiasm for science had reached a peak. Numerous Parisians fell into 'crisis' at the touch of Mesmer's hand and recovered with a new sense of being at harmony with the world. His followers, the mesmerists, published numerous case histories documenting their claims. "They produced an enormous barrage of propaganda—at least 200 books and pamphlets, more than were written on any other single subject during the decade before the opening phase of the Revolution in 1787" (DSB). The disciples of Mesmer, under the leadership of Nicolas Bergasse (see lot 672) and Guillaume Kornmann, formed a Masonic-like secret society, the Sociéte de l'Harmonie Universelle, to promote orthodox mesmerism. Its popularity spread to many provincial affiliates throughout France, and by 1789 the Society had attracted 430 Parisian members. Mesmer shared great financial profits from the Société, which claimed exclusive proprietorship of his deepest secrets.

The spread of mesmerism in France alarmed not only the traditional doctors but also the government, and a royal commission was ordered to investigate the claims of the mesmerists. Among the distinguished doctors and academicians on this commission were Bailly, Lavoisier, and Franklin. In 1784 they reported not only that Mesmer's fluid was ineffectual in its ability to cure disease, but denied its existence at all. The report badly damaged the movement and it later dissolved into various schisms and heresies. Mesmer finally left his followers to their quarrels and, after a period of traveling through England, Austria, Germany, and Italy, settled in Switzerland, where he spent most of the last thirty years of his life in relative seclusion.

"Since his time the investigation of how to release subconscious states through auto- and hetero-suggestion has continued, and the whole field of extra-sensory perception and spritualism has affinity with mesmerism. Much more important scientifically were the experiments of Braid in Scotland and Charcot in Paris, and the development of psychoanalysis: Freud's first experiments were on hypnotic patients; and Jung was particularly close to mesmerism in his belief that consciousness could transcend time and space" (PMM).

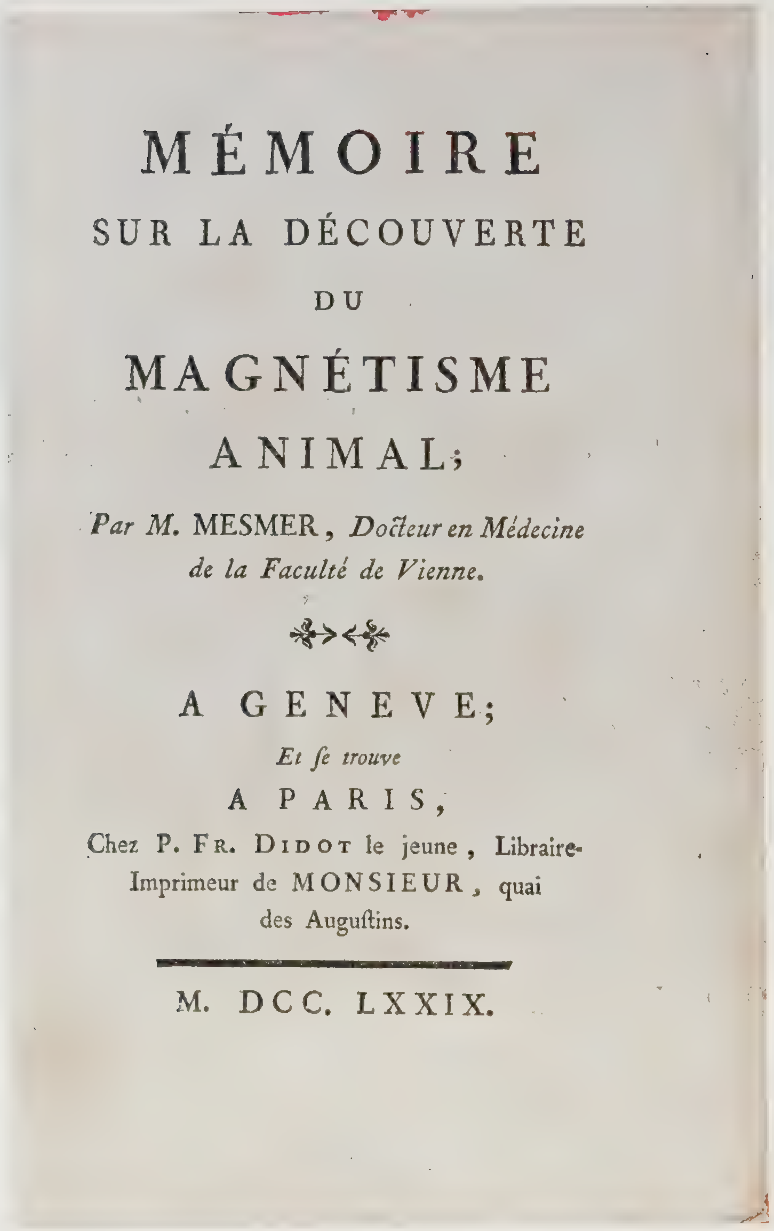
o668

MESMER, Franz Anton (1734-1815). *Dissertatio physico-medica de planetarum influxu.* Vienna: Ghelen, 1766.

8° (168 x 102 mm). Collation: A-C^8. 24 leaves. Original plain blue wrappers. *Provenance*: Bibliotheca Ducumb? (inscription on title-page).

FIRST EDITION OF MESMER'S DOCTORAL THESIS, THE ORIGIN OF HIS THEORY OF ANIMAL MAGNETISM. Mesmer's treatise on the gravitational influence exerted by the planets and speculation about invisible fluids derived both from Cartesianism and from the later queries in Newton's *Opticks*. Newton makes reference again to these fluids in the final paragraph of his *Principia*, commenting on "the most subtle spirit which pervades and lies hid in all gross bodies." The immediate source, however, of Mesmer's fluid "was Richard Mead's *De imperio solis ac lunae in corpora humana et morbis inde oriundis* (London, 1704 [see lot 659]), a work upon which Mesmer's thesis drew heavily. Mesmer traced his theory of animal magnetism to this thesis. EXTREMELY RARE. Pattie, "Mesmer's medical dissertation and its debt to Mead's *De imperio solis ac lunae*," in: *Journal of Historical Medical & Allied Sciences* II (1956), pp. 275-87; Tischner 1; Norman M1.

Estimate: $3,000-4,000



MÉMOIRE
SUR LA DÉCOUVERTE
DU
MAGNÉTISME
ANIMAL;

Par M. MESMER, *Docteur en Médecine*
de la Faculté de Vienne.

A GENEVE;
Et ſe trouve
A PARIS,
Chez P. FR. DIDOT le jeune, Libraire-
Imprimeur de MONSIEUR, quai
des Auguſtins.

M. DCC. LXXIX.

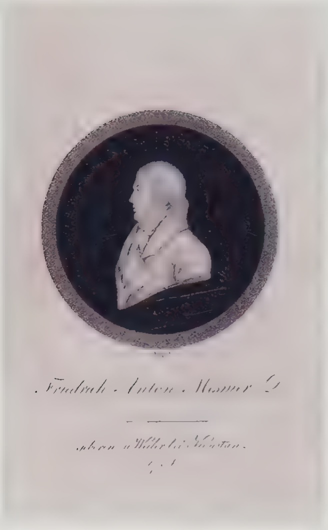
669

MESMER, Franz Anton (1734-1815). *Mémoire sur la découverte du magnétisme animal.* Geneva and Paris: Pierre-François Didot le jeune, 1779.

8° (161 x 105 mm). Contemporary mottled sheep. *Provenance*: Société de l'Harmonie Universelle (stencil incorporating the royal arms and inscription on front flyleaf: "Appartenant à la Société de l'harmonie de France, et faisant partée de sa Bibliothéque").

FIRST EDITION OF THE MANIFESTO OF MESMERISM. IMPORTANT ASSOCIATION COPY, FROM THE LIBRARY OF THE SOCIÉTÉ DE L'HARMONIE DE FRANCE, an organization founded by Nicolas Bergasse to promote orthodox mesmerism. See Darnton, *Mesmerism*, pp. 3-81; *En français dans le texte* 171; Garrison-Morton 4992.1; Grolier *Medicine* 47 (this copy exhibited); *Heirs of Hippocrates* 1013; Hunter-Macalpine, pp. 480-82; NLM/Blake, p.302; PMM 225; Tischner 10; Waller 6505; Norman M4.

Estimate: $4,000-6,000



ɔ670

MESMER, Franz Anton (1734-1815). Collection of 48 works in 29 volumes (including a few duplicates). Various imprints, dates and formats. A comprehensive collection containing numerous editions and translations of Mesmer's works (a few works by other Mesmerists or anti-Mesmerists included when bound together). For a more complete individual description of the works included, please consult the *Haskell F. Norman Library of Science & Medicine* private library catalogue (San Francisco, 1991), vol. II, pp. 872-907.

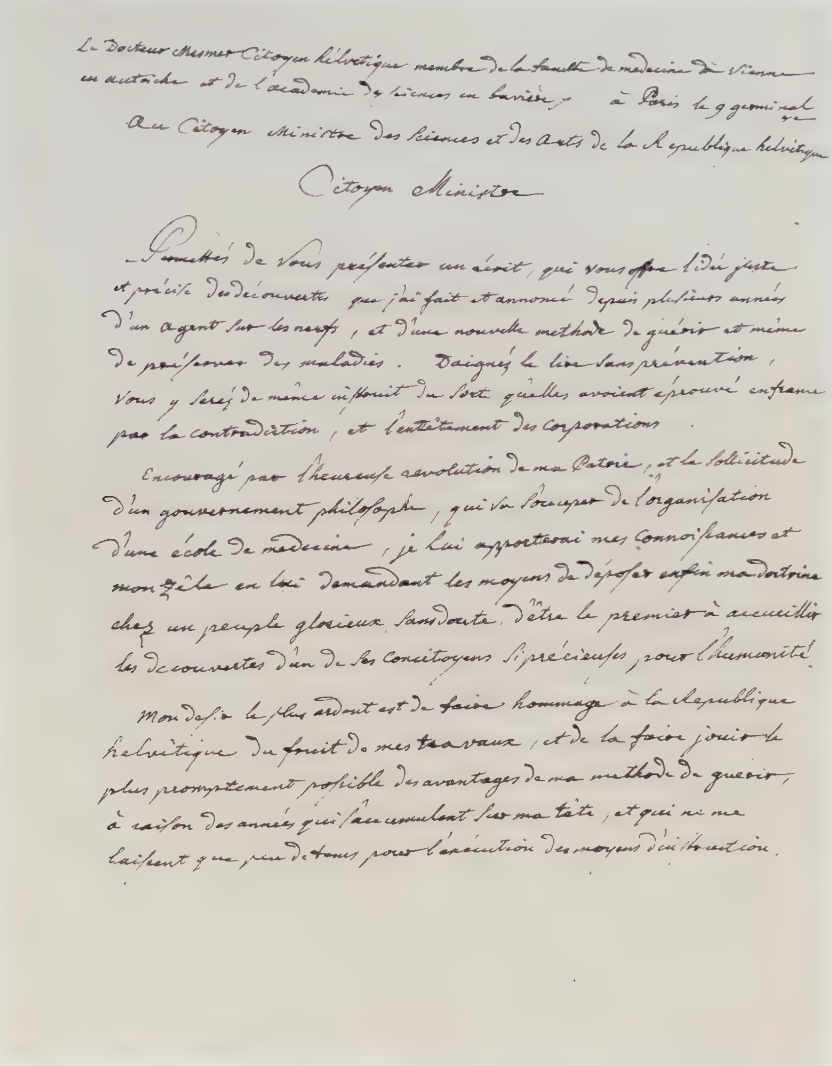
INCLUDES:

Mémoire sur la découverte du magnétisme animal. Geneva and Paris: P.-F. Didot le jeune, 1779. 8°, original marbled wrappers, UNCUT AND UNOPENED; quarter morocco folding case. FIRST EDITION OF THE MANIFESTO OF MESMERISM (see lot 669). PMM 225; Tischner 10; Norman M5. — *Schreiben über die Magnetkur.* N.p., 1776. 8°, stitched, original paper spine (few internal tears). Second separate edition, first issue (without third gathering). Tischner 5; Norman M2. — Second issue of previous (with third gathering containing "Anhang von einigen Briefen und Nachrichten"). Tischner 6; Norman M3. — [bound with:] *Mémoire sur la découverte du magnétisme animal.* Geneva and Carlsruhe: Michel Maklot, 1781. 8°, (lacks half-title). Tischner 11; Norman M9. — [bound with:] *Abhandlung über die Entdeckung des thierischen Magnetismus.* Translated from the French. Carlsruhe: Michael Macklot, 1781. 8°. First edition in German. Tischner 12; Norman M11. 3 works bound in one volume, contemporary marbled boards. — *Mémoire sur la découverte du magnétisme animal.* Geneva and Paris: P.-F. Didot le jeune, 1779. 12°, modern mottled sheep. First duodecimo edition (possibly a piracy). Norman M6. — *Mémoire sur la découverte du magnétisme animal.* Geneva and Carlsruhe: Michel Maklot, 1781. 8°. Second edition. Tischner 11; Norman M7 — [Bound with:] Charles d'ESLON (1750-1786). *Observations sur le magnétisme animal.* London and Carlsruhe: Michel Maklot, 1781. 8°. FIRST EDITION. Norman 77. 2 works in one volume, 19th-century half calf. — "Mémoire sur la découverte du magnétisme animal," in: *Recueil des pièces les plus intéressantes sur le magnétisme animal.* N.p., 1784. 8°, original marbled wrappers, uncut. First edition of the *Recueil*, containing a reprint of the *Mémoire.* Norman M10. — *Kurze Geschichte des thierischen Magnetismus bis April 1781.* Carlsruhe: Michael Macklot, 1783. 8°. First edition in German. Tischner 14; Norman M16. — [Bound with:] *Abhandlung über die Entdeckung des thierischen Magnetismus.* Carlsruhe: Michael Macklot, 1781. 8°. First edition in German, variant state of title-page with woodcut title-ornament reversed (see Norman M11 in this lot). Norman M13. — [Bound with:] *Schreiben über die Magnetkur.* N.p., 1776. 8°. Second separate edition, second issue. Tischner 6; another copy of Norman M3. — [Bound with:] Charles d'ESLON. *Beobachtung über den thierischen Magnetismus.* Carlsruhe: Michael Macklot, 1781. 8°. First edition in German. Norman M79. — [Bound with:] Peter VON OSTERWALD and Jacques DE HARSU. *Fortsetzung der Schreiben die Mesmerischen Magnetkuren betreffend.* Augsburg: n.p., 1777. 8°. FIRST EDITION. Norman M86. 5 works in one volume, contemporary mottled sheep. — *Précis historique des faits relatifs au magnétisme-animal jusques en avril 1781.* Edited and translated into French from German by Charles d'Eslon. London, Liège and Spa: Bollen, 1781. 8°, contemporary half calf. *Provenance*: Comte de Borch (bookplate); Dr. Köster (stamp). FIRST EDITION, variant issue A (with publisher's name in imprint on title-page). Tischner 13; Norman M14. — Another issue, original plain gray wrappers, uncut. Variant B (without publisher's name in imprint). Norman

M15. — *Au roi* [drop title]. N.p., n.d. [circa 1784]. 8°, modern wrappers. Norman M18. — *Lettres de M. Mesmer à M. Vicq-d'Azyr, et à messieurs les auteurs du Journal de Paris.* Brussels: n.p., 1784. 8°, stabbed as issued, uncut. FIRST EDITION. Crabtree 85; Norman M24. — *Lettre de l'auteur de la découverte du magnétisme animal, à l'auteur des réflexions préliminaires.* N.p.: for Chez Gastelier Libraire (mounted slip on final leaf), n.d. 8°. FIRST EDITION of Mesmer's response to Eprémesnil (see Norman M76 in this volume). Crabtree 144; Norman M19. — [Bound with:] *Lettres de M. Mesmer, à M. Vicq-d' Azyr, et à messieurs les auteurs du Journal de Paris.* Brussels: for Gastelier (mounted slip on title), 1784. 8°. FIRST EDITION. Crabtree 85; Norman M23. — [Bound with:] *Lettres de M. Mesmer, à messieurs les auteurs du Journal de Paris, et à M. Franklin.* N.p.: for Gastelier (mounted slip on title), n.d. 8°. FIRST EDITION. Crabtree 84; Tischner 15; Norman M25. — [Alexandre André Philippe Frédéric BACHER]. *Grande, belle découverte. Magnétisme animal* [drop title]. Paris: Didot, 1783. 8°. FIRST EDITION. Crabtree 28; Norman M44. — [Bound with:] Nicolas BERGASSE. *Observations de M. Bergasse sur un ecrit du Docteur Mesmer.* London: n.p., 1785. 8°. FIRST EDITION. Crabtree 123; Darnton, pp. 72, 78-80; Wellcome II, p.147; Norman M51. — [Bound with:] BERGASSE. *Supplément aux observations de M. Bergasse* [half-title]. N.p., n.d. 8°. FIRST EDITION. Crabtree 124; Norman M54. — [Bound with:] SOCIÉTÉ DE L'HARMONIE. *Du Mercredi 25 Mai 1785* [drop title]. N.p.: for Gastelier (mounted slip), n.d. 2 leaves. Darnton, p. 72; Norman M71. — Jean Jacques Duval d'EPRÉMESNIL. *Sommes versées entre les mains de Monsieur Mesmer, pour acquérir le droit de publier sa découverte* [drop title]. N.p.: for Gastelier (mounted slip), n.d. 4 leaves. Crabtree 136; Darnton, pp. 51-52; Norman M76. — *Lettre d'un médecin de Paris, à un médecin de Province* [drop title]. N.p.: for Gastelier (mounted slip), n.d. [1784]. 8°. FIRST EDITION. Crabtree 86; Norman M104. 9 works in one volume, contemporary calf. — *Lettre de M. Mesmer, à M. le comte de C**** [drop title]. N.p., n.d. 4°, stabbed as issued, uncut. First quarto edition. Crabtree 82; Darnton, pp. 85-86; Norman M21. — *Lettres de M. Mesmer, à M. le comte de **** N.p., n.d. 8°, marbled boards. First octavo edition. Norman M22. — *Lettres de M. Mesmer, à messieurs les auteurs du Journal de Paris, et à M. Franklin.* N.p., n.d. 8°, marbled boards. Later edition. Norman M26. — *Aphorismes de M. Mesmer.* Edited by Caullet de Veaumorel. Paris: Quinquet l'aîné, 1785. 12°, later vellum, original printed wrappers bound in. FIRST EDITION. Crabtree 129; Norman M27. — Another edition. [Paris: Quinquet], 1785. 12°, contemporary half sheep. Second edition. Norman M28. — Another edition. Paris: Bertrand, 1785. 8°. Third edition. Norman M29. — [Bound with:] Jean François FOURNEL. *Essai sur les probabilités du somnambulisme magnétique.* Amsterdam and Paris: Chez les Marchands de Nouveautés, 1785. 8°. FIRST EDITION. Crabtree 139; Wellcome III, p.48; Norman M87. — [Bound with:] A.A. TARDY DE MONTRAVEL. *Essai sur la théorie du somnambulisme magnétique.* London: n.p., 1785. 8°. FIRST EDITION. Crabtree 152; Norman M149. 3 works bound in one volume, contemporary half mottled sheep. — *Aphorismes de M. Mesmer.* Paris: n.p., 1786. 2 volumes in one, 12°, original plain wrappers, uncut. Fourth edition. Norman M30. — *Lehrsäzze des Herrn Mesmer's.* Edited by L. Caullet de Veaumorel. Strassburg: Akademischen Buchhandlung, 1785. 8°. First edition in German. Tischner 22; Norman M31. — [Bound with:] *Neue Beiträge zur praktischen Anwendung des Thierischen Magnetismus.* Strassburg: Akademischen Buchhandlung, 1786. 8°. FIRST EDITION, this supplement to the German edition of Mesmer's *Aphorisms* includes a translation of Johann Nicolaus Pechlin's account of Valentine Greatrakes (see also lot 478), taken from his *Observationibus physico-medicis* (1691). Norman M115. 2 works bound in one volume, original boards. — *Mémoire de F.A. Mesmer ... sur ses découvertes.* Paris: Lesguilliez for Fuchs, 1798/99. 8°, contemporary boards. FIRST EDITION, in which Mesmer attempted to eradicate all traces of the occult from animal magnetism. Crabtree 211; Norman M32. — Another edition, edited by Joseph Louis Picher de Grandchamp. Paris: Pierre Maumus, 1826. 8°, later quarter cloth. Second edition. Tischner 25; Norman M33. — Another copy, original printed wrappers, uncut. Norman M34. — *Adresse aux mères de famille* [drop title]. N.p., n.d. 4 leaves. Norman M36. — [Bound with:] *Lettres de F.A. Mesmer D.M. sur l'origine de la petite vérole, et le moyen de la faire cesser.* Paris: Imprimerie des Sciences et Arts, 1800. 4°. FIRST EDITION. Crabtree 216; Tischner 26; Norman M37. — [Bound with:] *Précis de la découverte du magnétisme animal, avec une lettre sur le flux et reflux.* N.p., n.d. 8°. Norman M38. 3 works bound in one, contemporary mottled stiff wrappers. — *Mesmerismus. Oder System der Wechselwirkungen, Theorie und Anwendung des thierischen Magnetismus.* Berlin: Nikolaischen Buchhandlung, 1814. 8°. Stipple-engraved portrait of Mesmer. FIRST EDITION. Crabtree 250; Tischner 31; Norman M39. — [Bound with:] Karl Christian WOLFART. *Erläuterung zum Mesmerismus.* Berlin: Nikolaischen Buchhandlung, 1815. 8°. FIRST EDITION. Crabtree 256; Norman M153. 2 works bound in one volume — *Allgemeine Erläuterungen über den Magnetismus und den Somnambulismus.* Carlsruhe: n.p., 1815. 8°, original wrappers, uncut. Second edition. Norman M40. — *Magnétisme animal. Mémoires et aphorismes de Mesmer, suivis des procédés de d'Eslon.* Edited by Jean Joseph Adolphe Ricard. Paris: Germer Baillière, 1846. 8°, original wrappers (from publisher's waste). First separate edition. Norman M41.

(29)

Estimate: $25,000-35,000



Le Docteur Mesmer Citoyen helvetique membre de la faculté de medecine de Vienne
en autriche et de l'academie des sciences en baviere, — à Paris le 9 germinal an 7
Au Citoyen Ministre des sciences et des Arts de la Republique helvetique

Citoyen Ministre

Permettés de vous présenter un écrit, qui vous offre l'idée juste
et précise des découvertes que j'ai fait et annoncé depuis plusieurs années
d'un agent sur les nerfs, et d'une nouvelle methode de guérir et même
de préserver des maladies. Daignés le lire sans prévention,
vous y serés de même instruit du sort qu'elles avoient éprouvé en France
par la contradiction, et l'entêtement des corporations.

Encouragé par l'heureuse revolution de ma Patrie, et la sollicitude
d'un gouvernement philosophe, qui va s'occuper de l'organisation
d'une école de medecine, je lui apporterai mes connoissances et
mon zèle en lui demandant les moyens de déposer enfin ma doctrine
chez un peuple glorieux, sans doute, d'être le premier à accueillir
les decouvertes d'un de ses concitoyens si précieuses pour l'humanité.

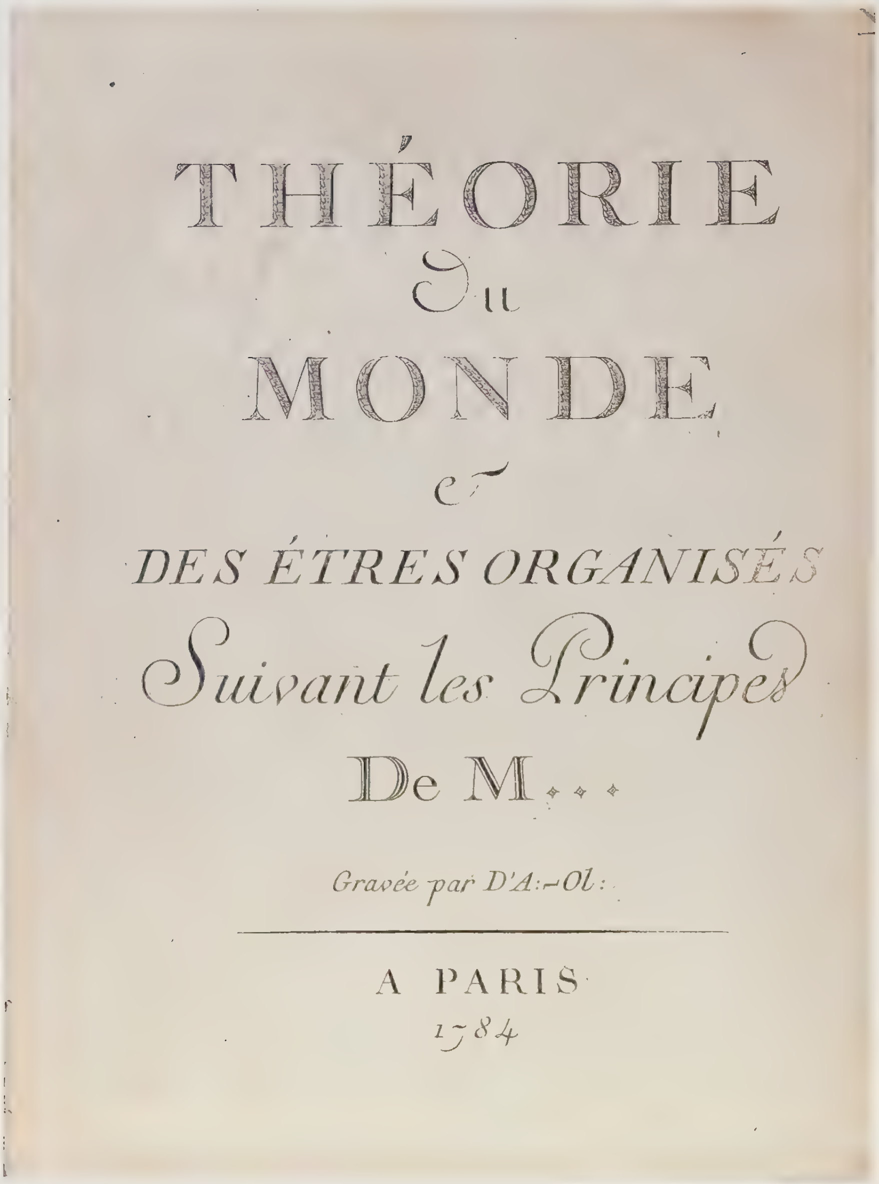
Mon desir le plus ardent est de faire hommage à la Republique
helvetique du fruit de mes travaux, et de la faire jouir le
plus promptement possible des avantages de ma methode de guerir,
à raison des années qui s'accumulent sur ma tête, et qui ne me
laissent que peu de tems pour l'exécution des moyens d'instruction.

671

MESMER, Franz Anton (1734-1815). Autograph letter signed ("Mesmer") to "Citoyen Ministre des Sciences et des Arts de la Republique Helvetique," Paris, 9 Germinal an 7 (30 March 1799). 4 pages, 4° (212 x 166 mm), in French. An exceptional letter seeking an official medical appointment. Mesmer encloses a pamphlet which will give "l'idée juste et précise des decouvertes, que j'ai fait et annoncé depuis plusieurs années...et d'une nouvelle methode de quérir et même de preserver des maladies..." Mesmer reports that he has been encouraged by the "revolution dans ma Patrie, et la solicitude d'un gouvernement philosophe," and its plans to establish a medical school. where he hopes he will finally have the opportunity to share his discoveries, for the sake of humanity. Because of his advancing age, he is anxious to pay homage to the Swiss republic, and asks that the minister establish a clinical chair in a hospital, where he may develop treatments for all types of illnesses, and the prevention of congenital disease. He dares to predict that eventually everyone will recognize the extent of "mes decouvertes en physique et de medicine, et leur application utile pour le perfectionnement de l'espece humaine." He continues in similar vein. Norman M35. — MESMER. Letter signed ("Mesmer") to A.J.M. Servan, "ancien avocat Général au Parlement de Dauphiné," Paris, 23 April 1784. 2 pages, 4° (227 x 182 mm). Cloth folding case; in French. Mesmer introduces a Monsieur Orelut, "membre de la Société que j'ai formée à Paris pour la Dévelopement et la propagation de ma Doctrine" (the Société de la Harmonie Universelle), who, Mesmer reports, hopes to establish a similar group in Lyons because those in the provinces should be able to share in the beneficial fruits of his discoveries, for the good of humanity. Antoine Servan, Mesmer's correspondent, was a radical legal philosopher and a staunch advocate of mesmerism. Norman M17.

(2)

Estimate: $3,000-4,000



THÉORIE
du
MONDE
et
DES ÊTRES ORGANISÉS
Suivant les Principes
De M...

Gravée par D'A:-Ol:

A PARIS
1784

672

[MESMERISM] [BERGASSE, Nicolas (1750-1832)]. *Théorie du monde et des êtres organisés*. Paris: [privately published], 1784.

3 parts in one volume, 2° (325 x 238 mm). Text and illustrations engraved throughout. Engraved and manuscript key plate of occult symbols from another copy loosely inserted (some fraying at edges). Original gray boards (backstrip missing); quarter morocco folding case. *Provenance*: "Magnetisme" hand-lettered on front cover in an early hand.

VERY RARE FIRST EDITION. THE PHILOSOPHICAL FRAMEWORK OF MESMER'S METHOD. Published in a small edition for Mesmer's inner circle, Bergasse's *Théorie du monde* provided the philosophical framework for Mesmer's method. It begins with an account of the ultimate nature of the cosmos, followed by discussions of physics, medicine and morals. The occult symbols used throughout have an affinity to alchemical and other magical symbols. They were "generally considered as magic hieroglyphs, capable of communicating primitive truths" (Darnton, p. 186). Crabtree 38; Dartnon, *Mesmerism*, pp. 186-88; Norman M50.

Estimate: $6,000-8,000

0673

[MESMERISM]. Collection of 103 works in 70 volumes on mesmerism by various authors (includes a few by Mesmer when bound together or duplicated from lot 670). Various imprints, dates and formats. A rich collection of works on mesmerism, including both mesmerists and anti-mesmerists. For a more complete individual description of the works included, please consult the *Haskell F. Norman Library of Science & Medicine* private library catalogue (San Francisco, 1991), vol. II, pp. 872-907.

SELECTED HIGHLIGHTS INCLUDE:

MESMER. *Lettre de M. Mesmer, à M. le comte de C**** [drop title]. N.p., n.d. [1784]. 4°. First quarto edition. Crabtree 82; Darnton, pp. 85-86; Norman M20. — [Bound with:] Charles Louis François ANDRY (1741-1829) and Michel Augustin THOURET (1748-1810). *Extrait des registres de la Société Royale de Médecine. Rapport sur les aimans présentés par M. l'Abbé le Noble* [drop title]. Paris: P.D. Pierres, 1783. 4°. FIRST EDITION, in which the two found that magnets were particularly effective in treating nervous diseases. Crabtree 27 (with variant pagination); Norman M42. — [Bound with:] Antoine COURT DE GÉBELIN (1725-1784). *Lettre de l'auteur du Monde primitif, à messieurs ses souscripteurs* [drop title]. N.p.: Valleyre, 1783. 4°. FIRST EDITION. Crabtree 29; Darnton, pp. 116-117; Wellcome II, p.399; Norman M65. — [Bound with:] COURT DE GÉBELIN. "Extrait d'une lettre de M. Court de Gebelin à M. h....n, en date du 20 Mar. 1784," manuscript extract in an unknown late 18th-century hand. Late 18th-century, *2½ pages*, Gébelin's account in defense of Mesmer, relating how he relapsed into illness several months after his mesmeric cure, and how he was relieved again of his sufferings by a visit to Mesmer. Norman M66 — [Bound with:] Charles d'ESLON (1750-1786). *Observations sur les deux rapports de MM. les commissaires nommés par sa Majesté, pour l'examen du magnétisme animal.* "Philadelphie" and Paris: Clousier and les marchands de nouveautés, 1784. 4°. FIRST EDITION. Crabtree 52; Wellcome II, p.530; Norman M81. — [Bound with:] *Exposé des expériences qui ont été faites pour l'examen du magnétisme animal.* Paris: Imprimerie Royale, 1784. 4°. FIRST EDITION of the brief account of the experiments performed by the first commission appointed by the French government to investigate mesmerism. Crabtree 30; Norman M82. — [Bound with:] *Extrait des Registres de la Société Royale de Médicine. Séance de 24 août 1784* [drop title]. Paris: Ph.-D. Pierres, 1784. 4°. FIRST EDITION of a brief précis of the findings of the second commission. Norman M83. — [Bound with:] Jean François FOURNEL (1745-1820). *Mémoire pour Me. Charles-Louis Varnier, Docteur-Regent de la Faculté de Médecine ... appellant un décret de la Faculté; contre les doyens & docteurs de ladite Faculté, intimés.* Paris: Veuve Herissant, 1785. 4°. FIRST EDITION of Fournel's appeal to the Parlement of Paris on behalf of Dr. Varnier, who had been expelled from the Faculté de Médecine for practicing animal magnetism. Crabtree 140; Norman M88. — [Bound with:] Antoine Laurent de JUSSIEU (1748-1836). *Rapport de l'un des commissaires chargés par le roi, de l'examen du magnétisme animal.* Paris: Veuve Herissant and Théophile Barrois, 1784. 4°. FIRST EDITION. Jussieu was a member of the second commission appointed by the French government to investigate mesmerism, and disagreed strongly with their conclusions and their condemnation of mesmerism. In response he issued his own report supporting aspects of mesmerism, as well as presenting some of his own theories relating to animal heat. Crabtree 72; Norman M99. — [Bound with:] *Rapport des commissaires chargés par le roi, de l'examen du magnétisme animal.* Paris: Imprimerie Royale, 1784. 4°. FIRST EDITION of this important report of the first commission appointed to investigate animal magnetism. It consisted of nine members and was presided over by Benjamin Franklin, who was the the United States Ambassador to France. After observing Eslon, who welcome and official inquiry (unlike Mesmer), the commission concluded that the mesmeric "fluid" did not exist and that the convulsions and other effects produced by animal magnetism were merely products of the imagination. Crabtree 31; Darnton, pp. 62-64; Norman M124. — *Rapport des commissaires de la Société Royale de Médecine, nommés par le roi pour faire l'examen du magnétisme animal.* Paris: Imprimerie Royale, 1784. 4°. FIRST EDITION of the report of the second commission which also condemned mesmerism, but it was less influential than the first. Crabtree 101; Darnton, p. 62; Norman M131. — *Supplément aux deux rapports de MM. les commissaires de l'Académie & de la Faculté de Médecine, & de la Société Royale de Médecine.* Amsterdam and Paris: Gueffier, 1784. 4°. FIRST EDITION. A collection of 111 case histories of mesmeric cures. Crabtree 33; Norman M147. — Michel Augustin THOURET (1748-1810). *Extrait de la correspondance de la Société Royale de Médecine, relativement au magnétisme animal.* Paris: Imprimerie Royale, 1785. 4°. FIRST EDITION of this collection of extracts from anti-mesmerist correspondents of the Société Royale de Médecine. Crabtree 154; Norman M151. 13 works in one volume, contemporary French mottled sheep gilt (some wear to joints at ends). *Provenance*: M. de Lamothe (engraved armorial bookplate). A FINE COLLECTION INCLUDING THE RARE QUARTO REPORTS.

[Jean Jacques Duval d'EPRÉMESNIL (1746-1794)]. *Réflexions préliminaires, à l'occasion de la pièce intitulée, les Docteurs Modernes, jouée sur le Théâtre Italien, le seize Novembre 1784* [drop title]. N.p., n.d. [1784]. 8°, 2 leaves. FIRST EDITION of d'Eprémesnil's protest against the anti-mesmerist play *Les docteurs modernes*, which was having a successful run at the Comédie Italienne. Copies of this pamphlet, which denounced the play as slander, were thrown from the upper balcony into the audience during one of the performances. Crabtree 57; Darnton, p. 65; Wellcome II, p.527; Norman M74. — [d'EPRÉMESNIL]. *Suite de réflexions préliminaires à l'occasion des Docteurs modernes* [drop title]. N.p., n.d. [1784]. 8°, 4 leaves. FIRST EDITION of d'Eprémesnil's second pamphlet, a longer statement of his faith in mesmerism, which has also disseminated from the balcony during a performance of *Les docteurs modernes*. Crabtree 58; Darnton, p. 65; Wellcome II, p.527; Norman M75. TWO VERY RARE EPHEMERAL ITEMS.

Report of Dr. Benjamin Franklin, and other commissioners, charged by the King of France, with the examination of the Animal Magnetism, as now practised at Paris. Translated from the French. London: for J. Johnson, 1785. 8°, disbound. FIRST EDITION IN ENGLISH. Also includes an English translation of the *Rapport de la Société Royale de Médecine, intitulée "Recherches et doutes sur le magnétisme animal"* (1784). Norman M127.

"Rapport secret sur le mesmérism," in: *Le conservateur* I, pp. 146-55. Paris: Crapelet, 1799/1800. 2 volumes, 8°, contemporary tree calf gilt. FIRST EDITION of the government commission's "secret report" on the possibly deleterious effects of mesmerism on sexual morality. "Because of its delicate subject matter, this report was not included in the *Rapport des commissaires* (see quarto report volume above), but submitted privately in manuscript to the king. The report contains valuable information on mesmeric procedures, which did involve touching and close physical proximity" (Norman). Crabtree 213; Norman M132.

[Noel de Rochefort RETZ (d. ca. 1810)]. *Mémoire pour servir à l'histoire de la jonglerie, dans lequel on démontre les phénomènes du mesmérisme.* London and Paris: Méquignon aîné, 1784. Engraved frontispiece. 8°, original plain brown wrappers. VERY RARE FIRST EDITION. Retz linked the practice of animal magnetism to other healing impostures perpetrated throughout the ages, such as Gassner's exorcisms, Digby's sympathetic powder and Greatrakes' "stroking" cures. EXTREMELY RARE. See Crabtree 109 (stating that the second edition "seems to be the only one still extant") and Dureau, p. 38 (also describing only the second edition); Norman M137.

SOCIÉTÉ D'HARMONIE UNIVERSELLE DE FRANCE. *Règlements présentés à la Société de l'Harmonie de France, par le comité nommé à cet effet, par l'Assemblée générale du mois de Juillet 1784.* N.p., n.d. [1785?]. 4°, stitched. FIRST EDITION, containing forty-five rules of the Society. Norman M145.

[VILLIERS, Charles de (1765-1815)]. *Le mangétiseur amoureux.* Edited by the Marquis de Chastenet de Puységur. Paris: Chez Dentu, 1824. 2 volumes in one, 8°, modern marbled boards. Second edition. Villiers was a memeber of the Société d'Harmonie Universelle and a friend of the marquis de Puységur, who issued this slightly revised second edition. Viller's novel "is as much a theoretical treatise on animal mangetism as it is a work of fiction ... Villers, more than any other writer of the age, emphasized the psychological interaction of the magnetic relationship" (Crabtree). The first edition was largely destroyed by the minister of police and only one known copy survives. This second edition is also quite rare, as de Puységur decided to destroy this new edition after its publication. See Crabtree 175; Norman M152A.

Journal de Paris, nos. 1-182, plus supplements (1 January-30 June 1784). Paris: Quillau, 1784. 4°. Together 182 issues (plus supplements) in one volume, 4°, contemporary sheep-backed boards. Contains numerous items related to Mesmer and mesmerism. See Norman for a further listing of contents. Darnton, p. 40; Norman M98.

Comte de LÜTZELBOURG, editor. Manuscript entitled "Cahiers d'instructions sur le magnétisme à l'usage du Collège des Fondateurs de la Société Harmonique des Amis Reunis de Strasbourg," [Strassburg], 1785. 149 pages, written on rectos and most versos, 19th-century quarter sheep. *Provenance*: M. Robilare (signature); Bibliothèque du Magnétisme (bookplate). A student of the Marquis de Chastenet de Puységur, the comte de Lützelbourg was the perpetual syndic of the Société Harmonique des Amis Reunis de Strasbourg, one of the most active chapters of the Société de l'Harmonie Universelle. This manuscript for instruction is divided into two parts, or "Cahiers d'instruction." The first part is based on Mesmer's system and the second on the system of Chastenet de Puységur. Bound in at the end are two printed documents, accomplished in manuscript, stating the conditions of membership for corresponding members: the first, issued to David Burges, is dated 5 January 1790; the second and third (duplicates) are both issued to Monsieur Kernn and dated 1787 (both accomplished in manuscript and signed by the secretary of the Société, de Mougé. Noramn M106.

SIBLY, Ebenezer (d. 1800). *A Key to Physic, and the Occult Sciences.* London: for the author, n.d. [circa 1795]. 4°. 13 engraved plates (8 hand-colored and 4 color-printed) by Prattent and J. Pass after Dodd. 19th-century reverse calf (rebacked). *Provenance*: Joseph Healey, 1806 (gilt-lettered lettering piece on cover). — [Bound with:] *Appendix to Culpeper's British Herbal* [drop title]. N.p., n.d. 4°. 17 hand-colored engraved plates, including 8 by Barlow, J. Pass and Prattent after Dodd and others. Noramn M144A.

DELEUZE, Joseph Philippe François (1753-1835). *Histoire critique du magnétisme animal.* Paris: Mame, 1813. 2 volumes, 8°, original wrappers, printed spine labels, uncut. FIRST EDITION of Deleuze's attempt to answer the legitimate criticisms made of animal magnetism. Crabtree 243; Norman M67.

DRAKE, Daniel (1785-1852). *Analytical Report of a series of experiments in Mesmeric Somniloquism, performed by an association of gentlemen.* Louisville: F.W. Prescott, 1844. 8°, disbound. FIRST EDITION. Crabtree 494; Norman M70.

[BARBEGUIERE, J.B.]. *La maçonnerie mesmerienne ... par mr. J.B.B****.* Amsterdam: n.p., 1784. 8°. FIRST EDITION. Crabtree 34; Norman M48. — [Bound with:] Jean Jacques PAULET. *L'antimagnétisme ou origine, progrès, décadence, renouvellement et réfutation du magnétisme animal.* London: n.p., 1784. 8°. Engraved satirical frontispiece (possibly hand-shaded with graphite). *first edition.* Crabtree 94; Norman M117. — [Bound with:] 5 other works (Norman M69, M89, M116, M118, and M142); together 7 works in one volume, contemporary sheep-backed boards. *Provenance*: Jesuit College, Poitiers (label), and Bruges (bookplate); index of titles on front free endpaper in an 18th-century hand.

[CAMBRY, Jacques (1749-1807)]. *Traces du magnétisme.* The Hague: n.p., 1784. 8°. FIRST EDITION. Crabtree 46; Norman M57. — [Bound with:] 3 other works (Norman M49, M119, and M120); together 4 works in one volume, 18th-century mottled calf gilt.

POE, Edgar Allan (1809-1849). *Mesmerism "in articulo mortis." An astounding and horrifying narrative, shewing the extraordinary powers of mesmerism in arresting the progress of death.* London: Short & Co., 1846. 8°, 19th-century calf gilt. *Provenance*: Walter Chrysler (bookplate); John A. Spoor (bookplate). FIRST SEPARATE PRINTING. BAL 16151; Heartman-Canny, *Poe*, p. 111; Norman M123.

The remaining items in this lot comprise Norman: (M8, M78), (M12, M80), M43, M45, M46, M47, (M51, M53, M55, M58, M103, M133, M136), M56, M59, M60, M61, M62, (M63, M143, M144, M146), M64, M68, M72, M73, M84, M85, (M90, M112, M126), M91, M92, M93, M94, M95, M96, M97, M100, M101, M102, M105, M107, M108, M109 (2 vols.), M110, M111, M113, M114, M121, M122, M125, M128, M129, M131, M134, M135, (M138, M139), M140, M141, M148, M150, and M152.

Estimate: $15,000-25,000

END OF AFTERNOON SESSION

MORNING SESSION
TUESDAY, 16 JUNE 1998 AT 10.00 A.M.
(LOTS 674-883)

○674

[METRIC SYSTEM]. [HAÜY, René-Just, editor (1743-1822)]. *Instruction sur les mesures déduites de la grandeur de lat terre, uniformes pour toute la république, et sur les calculs relatifs à leur division décimale.* Paris: Imprimerie Nationale, An II [1793-94]. 8° (196 x 126 mm). Without the single leaf containing figures 1-6 (present in the British Library copy). Contemporary marbled calf, spine gilt. *Provenance*: Leúpold Vincentz (signature). FIRST EDITION of one of the three introductory works to the metric system published in 1793/94 by the Temporary Commission on Republican Weights and Measures. Norman 1499. [*Bound with*:] *Traité des progressions par addition ... précédé par un discours sur la nécessité d'un nouveau système de calcul. Troisième édition.* Paris: Nyon le jeune and Desenne, 1795. 8°. Folding letterpress tables and one folding woodcut diagram. — *Instruction sur les mesures ...* Paris: Chez Lepetit, An II [1793/94]. 8° (217 x 143 mm). Engraved plate. Original plain violet wrappers, uncut. Another issue(?) of the first work above, with the statement: "cette édition est la seule qui, comme celle de l'Imprimerie nationale exécutive, été revue par l'Auteur." Norman 1500. — *Instruction sur les mesures ...* Tours: the heirs of Auguste Vauquer, An II [1793/94]. 8° (216 x 138 mm). 3 folding engraved plates. Original mottled wrappers, uncut. Tours reprint of the Paris first edition. Norman 1501. — *Instruction sur les mesures ...* Macon: Saphoux, An II [1793/94]. 8° (212 x 139 mm). 3 folding engraved plates. Original plum wrappers (front cover loose); cloth folding case. Dibner 113; Norman 1502. — *Instruction sur les mesures ...* Caen: Imprimerie nationale, chez G. le Roy, An II [1793/94]. 2 engraved folding plates, including one as frontispiece. Modern half cloth. *Provenance*: G. Allix (ink stamp on title-page). — *Instruction abrégée sur les mesures déduites de la grandeur de la terre, uniformes pour toute la République ...* Paris: Imprimerie Nationale, An II [1793/94]. 3 engraved plates. (Some stains.) Original mottled wrappers, uncut. FIRST EDITION of the second of the three introductions to the metric system issued by the Temporary Commission on Republican Weights and Measures. It is a shorter and more elementary presentation, restricted to the practical applications of ordinary life. Norman 1504.

In 1790 the French National Assembly appointed a commission to select a fundamental unit of length to replace the various regional systems then in use. It was decided that the fundamental unit of length should be derived from a dimension of the earth: one ten-million part of a quadrant of the earth's meridian extending between Dunkirk and Barcelona (see lot 660). The Constituent Assembly set up a general commission of weights and measures to carry these proposals into effect and in 1795 a law was passed introducing the metric system into France with provisional standards.

(6)

Estimate: $1,000-1,500

○675

MIDDLETON, Peter (d. 1781). *A medical discourse, or an historical inquiry into the ancient and present state of medicine: the substance of which was delivered at opening medical school in the city of New-York...Printed by Desire.* New York: Hugh Gaine, 1769.

8° (176 x 110mm). Woodcut head-piece on B1r (lacking engraved portrait of Myles Cooper [present in some copies], two small holes in title, not affecting text, browned, some page corners chipped, scattered spotting). Disbound, edges sprinkled yellow; modern half red morocco clamshell box. Austin 1298; Evans 11338; Garrison & Morton 6380; Guerra a-436; Sabin 48866 (not noting the portrait); Norman 1509. FIRST EDITION of the first American treatise on the history of medicine. Middleton was a founder of the medical school at King's College, now Columbia University, and the present is an expanded version of Middleton's address delivered at the school's opening on 2 November 1767. "Middleton is also noted for having performed one of the first dissections of a human body for the purposes of medical instruction recorded in America" (Norman). RARE: only a single copy has appeared at auction since 1979.

Estimate: $2,000-3,000

676

[MIDWIFERY & PAEDIATRICS]. ZWINGER, Theodore (1658-1724). *Paedoiatreia practica, curationem plerorumque morborum puerilium per meras observationes, in praxi quotidiana factas, clare & distincte exponens.* Basel: E. & J.R. Thurnisius, 1722. 8° (186 x 117 mm). (Some occasional light browning). Contemporary calf, gilt spine with red leather label. *Provenance*: Boston Medical Library (stamp, 1908, paper spine label, shelfmark). FIRST EDITION. Norman 2285. — OULD, Fielding (1710-1789). *A treatise of midwifery in three parts.* Dublin: by and for Oliver Nelson, and for Charles Connor, 1742. 8° (195 x 122 mm). 2 engraved plates (some leaves stained, occasional very minor worming, not affecting text). Contemporary gilt-ruled calf (rebacked, preserving most of original spine). *Provenance*: Richard Hinsley (inscription, 1773); manuscript note on p. 34 "Experience convinces me this is wrong." FIRST EDITION OF "THE FIRST TEXT BOOK OF OBSTETRICS OF ANY IMPORTANCE IN ENGLISH" (GM). Garrison-Morton 6151; Norman 1623. — NELSON, James (1710-1794). *An essay on the government of children, under three general heads: viz. health, manners, and education.* London: R. & J. Dodsley for M. Cooper, 1753. 8° (200 x 126 mm). (very minor occasional foxing). Contemporary calf, gilt spine, with black leather label (front cover detached, worn). *Provenance*: Right Hon. William, Earl of Glencairne (engraved armorial bookplate). FIRST EDITION OF ONE OF THE FIRST DETAILED CHILD-REARING GUIDES. Recommending less harsh treatment of children than Locke's *Some thoughts concerning education* (lot 625, Norman 1381). Norman 1580. — MOSCHION (fl. c. 500). Μοσχιωνοσ περι των γυναικων παθων. *De mulierum passionibus liber.* Edited by Frank Oliver Dewez. Vienna: Rud. Gräffer & Soc., 1793. 8° (187 x 112 mm). Textual engravings (some foxing to a number of pages). Contemporary half gilt-ruled calf, black leather spine label, marbled boards. *Provenance*: James Young Simpson (1811-1870), physician and developer of anesthesia (bookplate). FIRST DEWEZ EDITION. Norman 1558. — [ANONYMOUS]. *The maternal physician; A Treatise on the nurture and management of infants by an American matron.* New York: Isaac Riley, 1811. 8° (189 x 113 mm). Uncut (some browning throughout). Modern quarter morocco, marbled boards, by C. Allan Carpenter, Jr. *Provenance*: Dr, S.G. Jarvis (inscription); Clarissa H. Jarvis (inscription, 1821). FIRST EDITION. Norman 1454.

(8)

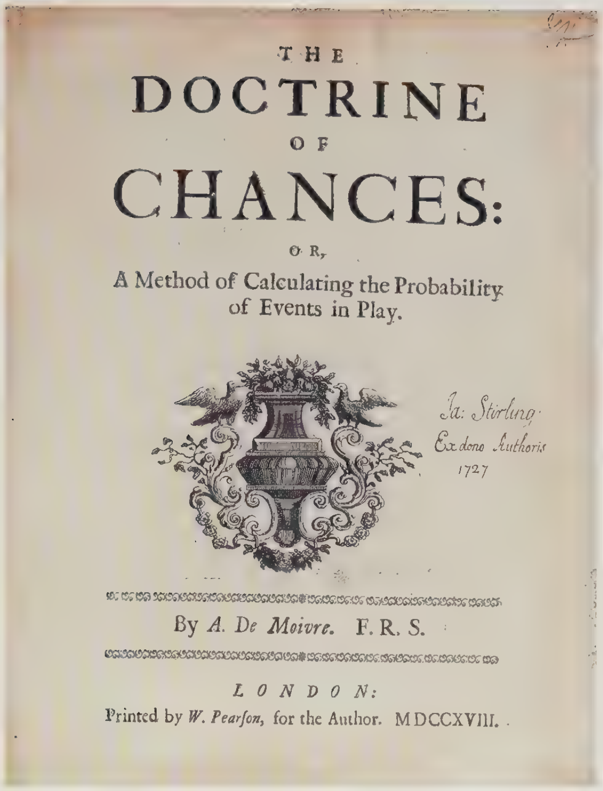
Estimate: $4,000-5,000

677

[MILITARY SURGERY]. LE DRAN, Henri François (1685-1770). *Traité ou reflexions tirées de la pratique sur les playes d'armes à feu.* Paris: Charles Osmont, 1737. 12° (162 x 97 mm). Contemporary sprinkled calf, spine gilt (some wear to edges). FIRST EDITION, SIGNED BY LE DRAN on the title-page (as usual) to prevent against piracy. Garrison-Morton 2149; Wellcome III, p.473; Norman 1300. — George James GUTHRIE (1785-1856). *On Gun-Shot wounds of the Extremities, requiring the different operations of amputation, with their after-treatment.* London: for Longman, Hurst, and others, 1815. 8° (228 x 140 mm). 4 engraved plates (stained). (Some staining at end.) Modern quarter calf antique, uncut. FIRST EDITION "OF ONE OF THE MOST IMPORTANT IN THE HISTORY OF THE SUBJECT" (GM). Garrison-Morton 2161; Wellcome III, p.182; Norman 957.

(2)

Estimate: $800-1,200

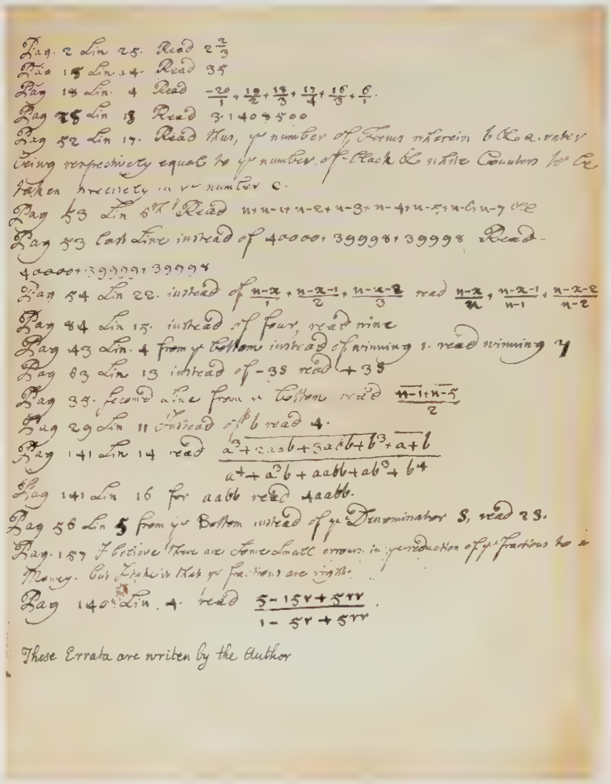


THE
DOCTRINE
OF
CHANCES:
OR,
A Method of Calculating the Probability
of Events in Play.

Ja: Stirling
Ex dono Authoris
1727

By *A. De Moivre.* F. R. S.

LONDON:
Printed by *W. Pearſon,* for the Author. MDCCXVIII.



Pag. 2 Lin 25. Read $2\frac{2}{3}$
Pag 15 Lin 14. Read 35
Pag 18 Lin. 4 Read $\frac{-20}{1}+\frac{19}{2}+\frac{18}{3}+\frac{17}{4}+\frac{16}{5}+\frac{6}{1}$.
Pag 75 Lin 18 Read 3·1408500
Pag 52 Lin 17. Read thus, ye number of Forms wherein b & a. valer being respectively equal to ye number of black & white Counters to be taken precisely in ye number c.
Pag 53 Lin 6th Read $n+n-1+n-2+n-3+n-4+n-5+n-6+n-7$ &c
Pag 53 last Line instead of 40000+39998+39998 Read 40000+39999+39998
Pag 54 Lin 22. instead of $\frac{n-x}{1}+\frac{n-x-1}{2}+\frac{n-x-2}{3}$ read $\frac{n-x}{n}+\frac{n-x-1}{n-1}+\frac{n-x-2}{n-2}$
Pag 84 Lin 15. instead of four, read nine
Pag 43 Lin. 4 from ye bottom instead of winning 1. read winning 7
Pag 83 Lin 13 instead of -38 read $+38$
Pag 35. second Line from ye bottom read $\frac{\overline{n-1}+\overline{n-5}}{2}$
Pag 29 Lin 11 instead of b read 4.
Pag 141 Lin 14 read $\frac{a^3+\overline{3aab+3abb+b^3}+\overline{a+b}}{a^4+a^3b+aabb+ab^3+b^4}$
Pag 141 Lin 16 for aabb read 4aabb.
Pag 56 Lin 5 from ye Bottom instead of ye Denominator 8, read 28.
Pag. 157 I believe there are some small errours in ye reduction of ye fractions to Money. but I take it that ye fractions are right.
Pag 140 Lin. 4. read $\frac{5-15r+5rr}{1-5r+5rr}$.

These Errata are writen by the Author

678

MOIVRE, Abraham de (1667-1754). *The Doctrine of Chances: or, A Method of Calculating the Probability of Events in Play*. London: W. Pearson, for the Author, 1718.

Half-sheet 4° printed work-and-turn (251 x 191 mm). *Collation*: π^2 (1 title, ± dedication to Newton), A^2 a-c^2 (preface, without c2 presumably blank); B-Z^2 Aa-Yy^2 (text). Engraved title-page vignette, engraved head- and tail-pieces. Contemporary English panelled calf (rebacked, some edgewear).

Provenance: James Stirling (1692-1770), mathematician who developed "Stirling's formula" from Moivre's investigations (his signature and inscription on the title-page: "Ja: Stirling / Ex dono Authoris 1727," mathematical notation on one margin, and notation on final leaf verso [see below]).

FIRST EDITION. PRESENTATION COPY TO THE MATHEMATICIAN JAMES STIRLING, AND CONTAINING MOIVRE'S MANUSCRIPT LISTING OF ERRATA AT END. De Moivre left France after the revocation of the Edict of Nantes in 1685 and spent the remainder of his life in London. He was among the intimate friends of Newton, to whom this book is dedicated. *The Doctrine of Chances* was Moivre's first book and was based on "De mensura sortis," a short memoir which was published in the *Philosophical transactions* in 1711. It was essentially a gambler's manual "giving a systematic presentation of the arithmetic principles upon which are based the solution of problems concerning the advantage of players and the size of wager which may be lain in a wide variety of games of chance" (Walker).

This copy was presented to James Stirling, author of *Methodus differentialis* (1730), which contains "Stirling's formula," based on Moivre's investigations into the approximate behavior for large *n* of the terms of the symmetrical binomial $(1 + 1)^n$, in which Moivre found the constant A = 2-21/125 = 2.168. Moivre's approximation was published in *Miscellanea analytica* in 1730 (see lot 679). "It is clear from De Moivre's account that he had the practical equivalent to 'Stirling's formula' before Stirling turned to this problem and that it was in response to De Moivre's investigation that Stirling took up this question" (Stigler, p. 73). Stirling developed his more elegant "formula" published as *Methodus Differentialis* (1730). The final verso at end CONTAINS 22 LINES OF MANUSCRIPT ERRATA IN DE MOIVRE'S HAND. A note below in Stirling's hand reads: "These Errata are written by the Author." AN IMPORTANT ASSOCIATION COPY. Babson/Newton 181; Stigler, pp. 70-88; Walker, pp. 12-13; Norman 1529.

Estimate: $3,000-4,000

679

MOIVRE, Abraham de (1667-1754). *Miscellanea analytica de seriebus et quadraturis.* London: J. Tonson & J. Watts, 1730.

4° (244 x 190 mm). Woodcut diagrams in text. Contemporary calf gilt (joints rubbed, some wear to corners).

FIRST EDITION of Moivre's first published attempt at approximating the terms of a binomial expansion, or the normal approximation to the binomial distribution. This anonymous work is often regarded as the original appearance of the "normal curve." He later completed his attempt and published his solution in a pamphlet entitled *Approximatio ad summam terminorum binomii* $(a + b)^n$ *in seriem expansi* (1733). "Moivre's discovery greatly clarified the concept of probability in his own time, and became the most fruitful single instrument of discovery used in probability theory and statistics for the next two centuries" (Norman). Stigler, pp. 70-88; Norman 1531.

Estimate: $600-800

680

MOIVRE, Abraham de (1667-1754). *Annuities upon Lives: or, the Valuation of Annuities upon any Number of Lives; as also, of Reversions. To which is added, an Appendix concerning the Expectations of Life, and Probabilities of Survivorship.* London: W.P., 1775.

8° (194 x 126 mm). *Collation:* π^4 (2 title, 3-4 dedication, without 1 presumably blank), A^4 (preface); A-P^4 (text, P3r-v tables, P4 blank; errata slip inserted between P3 and P4). 18th-century speckled calf, spine gilt (extremities rubbed).

FIRST EDITION. Moivre formulated the theory of annuities from a postulated uniform rate of mortality and constant rates fo interest on money. In determining the rate of mortality he used the mortality statistics gathered by Edmund Halley in the 1690s (included in the tables at end). "Here one finds the treatment of joint annuities on several lives, the inheritance of annuities, problems about the fair division of the costs of a tontine, and other contracts in which both age and interest on capital are relevent. This mathematics became a standard part of all subsequent commercial applications in England" (DSB). Kress 3595; Norman 1530.

Estimate: $700-900

681

MONRO, Alexander, *secundus* (1733-1817). *Observations on the structure and functions of the nervous system.* Edinburgh: William Creech and Joseph Johnson, 1783.

2° (505 x 305 mm). 50 engraved plates, drawn by Thomas Donaldson, Alexander Battoni and A. Fyfe, and engraved by Donaldson, Battoni and G. Cameron. Uncut. Original blue boards with vellum corners, rebacked in calf (edges worn).

FIRST EDITION. A study of the interior and exterior anatomy of the brain. Monro described - though not entirely correctly - the intraventricular foramen between the lateral and third ventricles (later named after the author). He also concluded that nerve function was not dependent on electricity. The most important work of the greatest member of the Monro medical dynasty. Garrison-Morton 1385; Norman 1538.

Estimate: $1,000-2,000

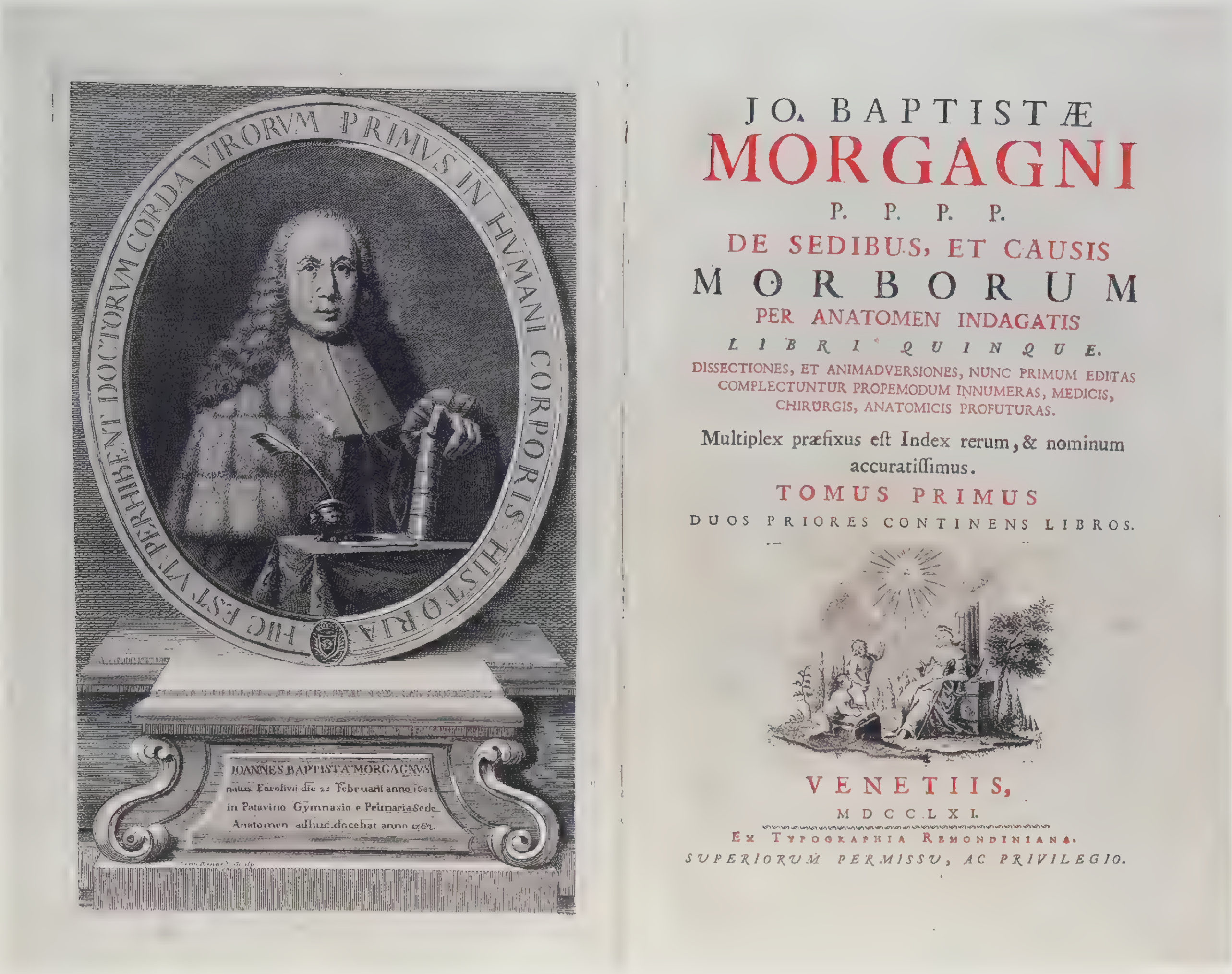
682

MONRO, Alexander, *secundus* (1733-1817). *Three treatises on the brain, the eye, and the ear.* Edinburgh: Adam Neill & Company, for Bell and Bradfute (for G.G. & J. Robinson, and J. Johnson, London), 1797.

4° (276 x 213 mm). 24 engraved plates (5 folding, Plate VII of Treatise III hand-colored), drawn by Andrew Fyfe and engraved by W. Archibald, G. Cameron and I. Beugo. Modern half calf, gilt ruled spine, cloth boards.

FIRST EDITION. Monro's last published work, including a defence of his earlier description of "Monro's foramen," which had not been universally accepted. Norman 1539.

Estimate: $2,000-3,000



HIC EST VT PERHIBENT DOCTORVM CORDA VIRORVM PRIMVS IN HVMANI CORPORIS HISTORIA

JOANNES BAPTISTA MORGAGNVS
natus Foroliuii die 25 Februarii anno 1682
in Patavino Gymnasio e Primaria Sede
Anatomen adhuc docebat anno 1762

JO. BAPTISTÆ
MORGAGNI
P. P. P. P.
DE SEDIBUS, ET CAUSIS
MORBORUM
PER ANATOMEN INDAGATIS
LIBRI QUINQUE.
DISSECTIONES, ET ANIMADVERSIONES, NUNC PRIMUM EDITAS
COMPLECTUNTUR PROPEMODUM INNUMERAS, MEDICIS,
CHIRURGIS, ANATOMICIS PROFUTURAS.
Multiplex præfixus eſt Index rerum, & nominum
accuratiſſimus.
TOMUS PRIMUS
DUOS PRIORES CONTINENS LIBROS.

VENETIIS,
MDCCLXI.
Ex Typographia Remondiniana.
SUPERIORUM PERMISSU, AC PRIVILEGIO.

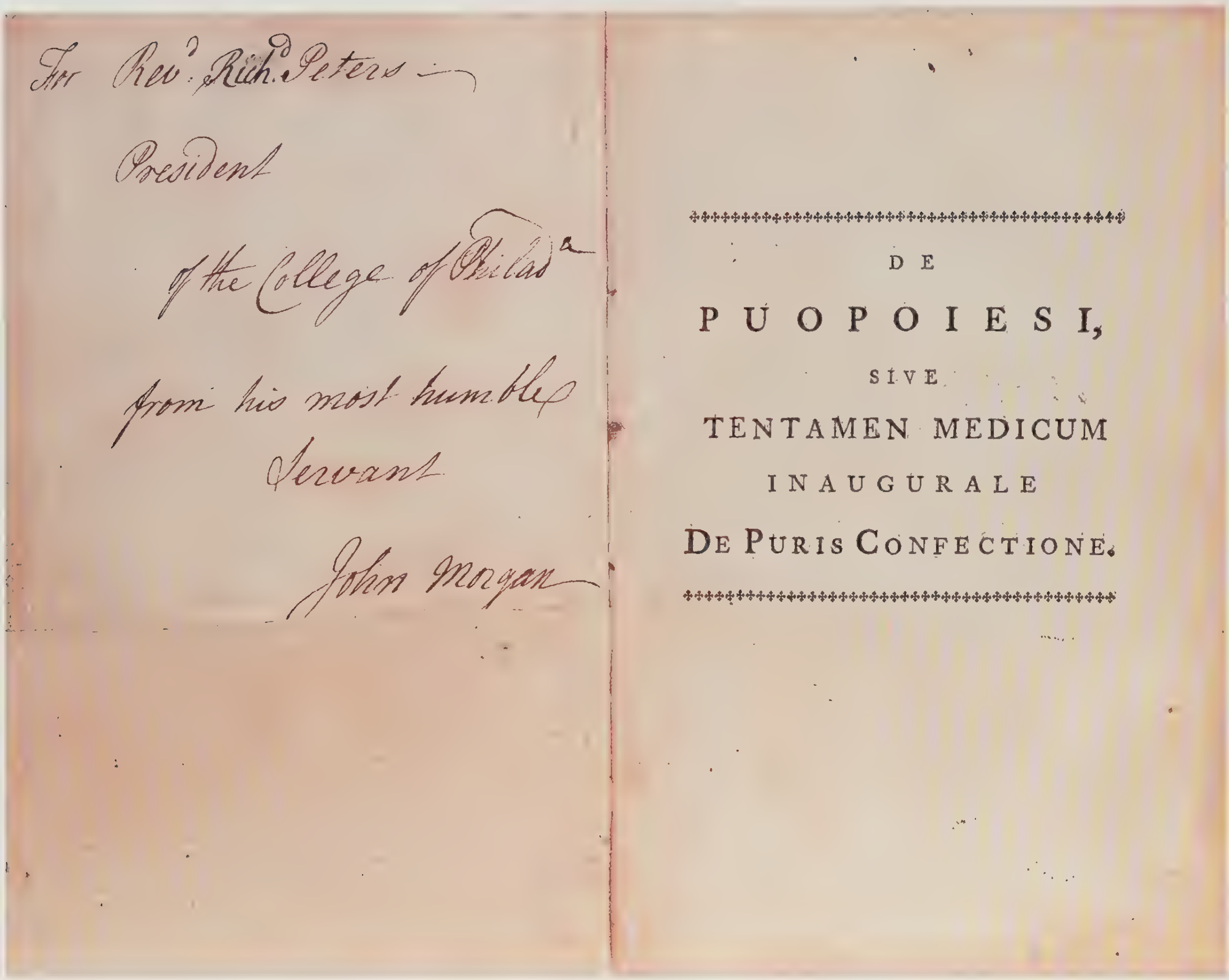
683

MORGAGNI, Giovanni Battista (1682-1771). *De sedibus, et causis morborum per anatomen indagatis libri quinque.* Venice: Remondini, 1761.

2 volumes in one, 2° (387 x 247 mm., uncut). Engraved portrait, engraved title vignettes, first title printed in red and black. Contemporary boards (rebacked with modern vellum).

FIRST EDITION. "ONE OF THE MOST IMPORTANT WORKS IN THE HISTORY OF MEDICINE, Morgagni was the true founder of modern pathological anatomy" (Garrison-Morton). Morgagni, Professor of Anatomy at Padua, used evidence from his experience and records of some 700 post-mortem dissections, to establish a procedure of basing diagnosis and treatment on a detailed knowledge of the anatomical conditions of common diseases, i.e. a classification of symptoms rather than diseases. The work includes a number of descriptions of new diseases, many of which have remained classics until recent times. Dibner *Heralds of Science* 125; Garrison-Morton 2276; Grolier *Medicine* 46; *Heirs of Hippocrates* 792; NLM/Blake, p.312; PMM 206; Osler 1178; Waller 6672; Norman 1547.

Estimate: $3.000-4.000



For Revd. Richd. Peters —
President
of the College of Philada
from his most humble
Servant
John Morgan

DE
PUOPOIESI,
SIVE
TENTAMEN MEDICUM
INAUGURALE
DE PURIS CONFECTIONE.

684

MORGAN, John (1735-1789). ΠΥΟΠΟΙΕΣΙΣ, *sive tentamen medicum de puris confectione*. Edinburgh: University Press, 1763.

8° (192 x 129 mm). Folding letterpress dedication leaf (clean tear repaired). Contemporary calf gilt, covers with central gilt ornament (rebacked). (Lower portion of front flyleaf renewed, catching two letters of signature on inscription).

Provenance: Rev. Richard Peters (c. 1704-1776), president of the board of trustees at the College of Philadelphia who helped to organize the Library Company of Philadelphia and the Pennsylvania Hospital (presentation inscription from the author on the front flyleaf: "For Rev^{d}. Rich\d. Peters - President of the College of Philad^{a} from his most humble servant / John Morgan"); S. Weir Mitchell (1829-1914), neurologist (bookplate).

VERY RARE FIRST EDITION OF MORGAN'S THESIS, PRESENTATION COPY TO THE PRESIDENT OF THE COLLEGE OF PHILADELPHIA. Morgan was born in Philadelphia, graduated from the College of Pennsylvania in the first class in 1757, then served as surgeon with provincial troops in the French and Indian War. He received his medical degree from the University of Edinburgh with this thesis, in which he advanced the view that pus was a secretion formed by the blood-vessels under conditions of inflammation. Upon his return to America, Morgan proposed the establishment of a medical school at the College of Philadelphia (now the University of Pennsylvania; see lot 685). This copy, presented to Richard Peters as the President of the College, may have been instrumental in the trustees decision to approve his plan of establishing a medical department within the College. A HIGHLY IMPORTANT ASSOCIATION COPY. Gordon, *Aesculapius comes to the colonies* (Ventnor, N.J., 1949), p. 465; Packard, *History of Medicine in the United States* (New York, 1963), p. 345; Norman 1548.

Estimate: $4,000-6,000

○685

MORGAN, John (1735-1789). *A Discourse upon the Institution of Medical Schools in America ... With a Preface Containing ... the Author's Apology for attempting to introduce the regular mode of practicing Physic in Philadelphia.* Philadelphia: William Bradford, 1765.

8° (176 x 111 mm). (One catchword shaved.) Modern half morocco gilt (extremities rubbed). *Provenance*: Irving S. Cutter (bookplate).

FIRST EDITION OF THE FIRST AMERICAN PUBLICATION ON MEDICAL EDUCATION. Morgan was born in Philadelphia, graduated from the College of Pennsylvania in the first class in 1757, then served as surgeon with provincial troops in the French and Indian War. A course of study in London, at the University of Edinburgh and in Italy under Morgagni followed. Upon his return to America, Morgan proposed the establishment of a medical school at the College of Philadelphia (now the University of Pennsylvania). His proposal was adopted on May 3, and the present proposal is the text of Morgan's commencement address: "an elaborate exposition of the nature and scope of medical science, its conditions in America, obstacles in the way of medical study, and reasons for the establishment of medical schools" (DAB). During the Revolutionary War Morgan was appointed by Congress as director-general of hospitals and physician-in-chief of the Continental Army, but because of internal dissension, he was removed by Congress in 1777. Despite praise from Washington, Morgan considered himself disgraced. He retired to private practice and his post at the Pennsylvania Hospital. Austin 1335; Cushing M510; Evans 10082; Garrison-Morton 1766.500; Guerra a-367; *Heirs of Hippocrates* 1019; Osler 3454; Sabin 50650; Norman 1549.

Estimate: $2,000-3,000

○686

MORTON, Richard (1637-1698). *Phthisiologia seu exercitationes de phthisi tribus libris comprehensae. Totumque opus variis historiis illustratum.* London: Samuel Smith, 1689.

8° (189 x 111 mm). (Some minor browning and foxing to text, very small marginal tears on G1 and Dd2, not affecting text.) Contemporary blind-tooled panelled speckled calf, gilt edges (joints and spine worn, upper cover loose). *Provenance*: A. Holyoke (inscription); Essex Southern District Medical Society (label); Boston Medical Library (label).

FIRST EDITION. "The first application of the principles of pathology to the study of pulmonary tuberculosis" (GM), which Morton based on first-hand clinical observation, rather than the study of existing texts. The work also contains the first description of anorexia nervosa. Garrison-Morton 3216; NLM/Krivatsy 8132; Wing W-2831; Norman 1555.

Estimate: $1,000-1,500

687

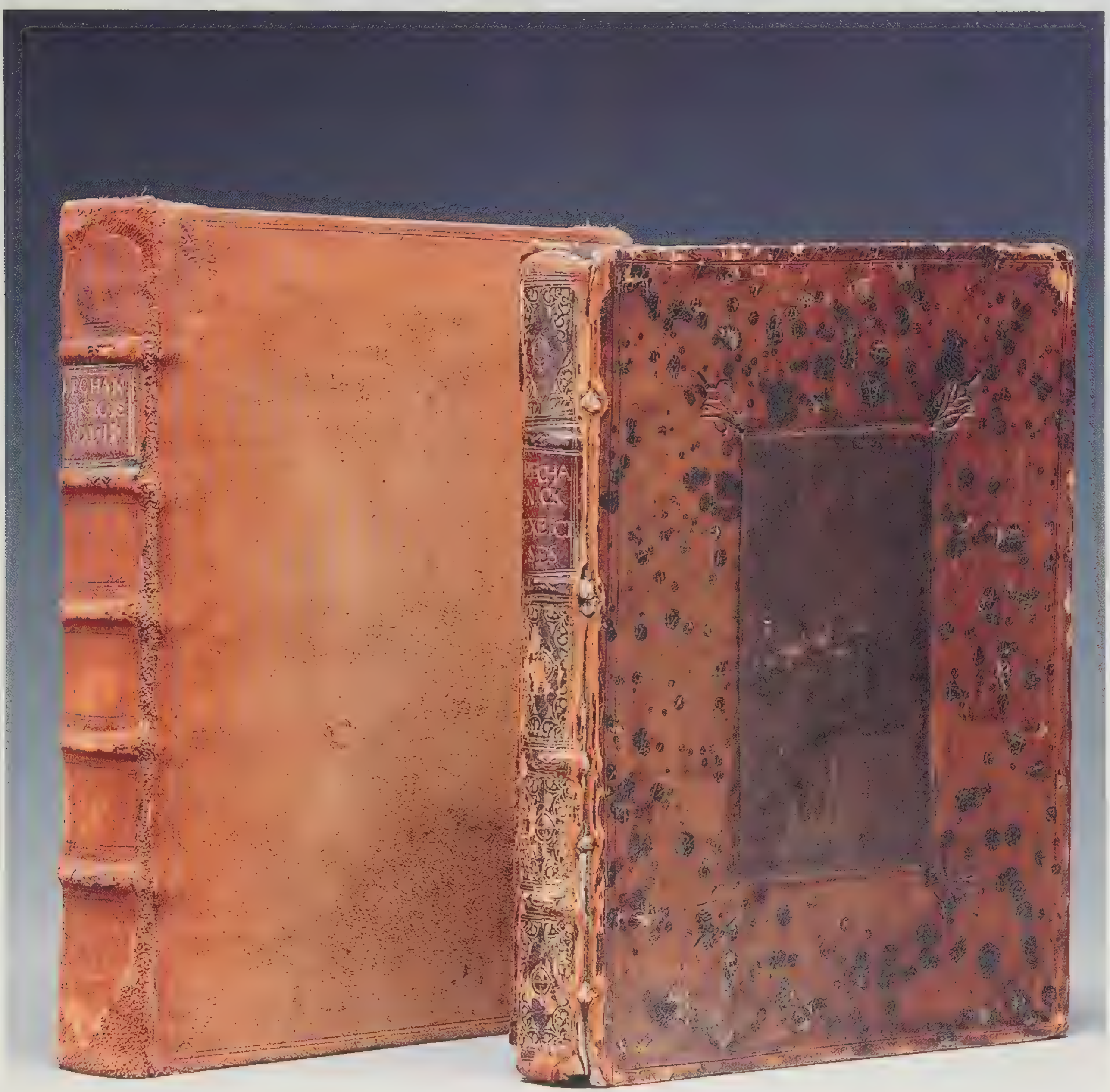
MOXON, Joseph (1627-1700). *Mechanick Exercises, or the Doctrine of Handy-Works. -Mechanick Exercises: Or, the Doctrine of Handy-Works. Applied to the Art of Printing. The Second Volumne.* London: printed for Joseph Moxon, [1677-]1683.

2 volumes (v.1: 13 parts containing 14 "numbers," v.2: 7 parts containing 24 numbers), chancery 4° (v.1: 192 x 151 mm), v.2: 200 x 151 mm). Collation: A^4 (engraved frontispiece of smith's tools, general title dated 1683, preface), B-C^4 (number I *Smithing*); D-F^4 (plate 2, divisional title dated 1683, number II *Hinges, Locks, Keys, Screws and Nuts*); G-I^4 (frontispiece, divisional title dated 1677, number III *Jacks, Bullet Molds, the twisting of Iron, Case hardning, Steel, the manner of Softening, Hardning, and tempering*); K^2 (plate 4, divisional title dated 1678), L-M^4 (number IV *The Art of Joynery*); χ^2 (plate 5, divisional title dated 1678), N-P^4 (number V *Continued in the Art of Joynery*); 2 leaves (plates 6 and 7), 2χ^2 (-1 blank, divisional title dated 1678), Q-R^4 (number VI *Continued in the Art of Joynery*); 2 leaves (plates 8 and 9), 3χ^2 (-1 blank, divisional title dated 1679), S-T^4 (number VII *House-Carpentery*); 4χ^2 (plate 10, divisional title dated 1679), U-X^4 (number VIII *House-Carpentery*), plate 11 inserted between X2.3; 5χ^2 (blank, divisional title dated 1679), Y-Z^4 Aa^4 (number IX *House-Carpentery*); 2 leaves (plates 12 and 13), 6χ^2 (-1 blank, divisional title dated 1680), Bb-Ee^4 (number X *Turning*, Dd2 plate 14, Dd3 divisional title dated 1680, number XI *Turning*); 7χ^2 (plate 15, divisional title dated 1680), Ff-Gg^4 (number XII *Turning*); 8χ^2 (plate 16, divisional title dated 1680), Hh-Ii^4 (number XIII *Turning*); 9χ^2 (plate 17, divisional title dated 1680), Kk-Ll^4 (number XIV *Turning*, errata), plate 18 inserted between Kk1 and Kk2.

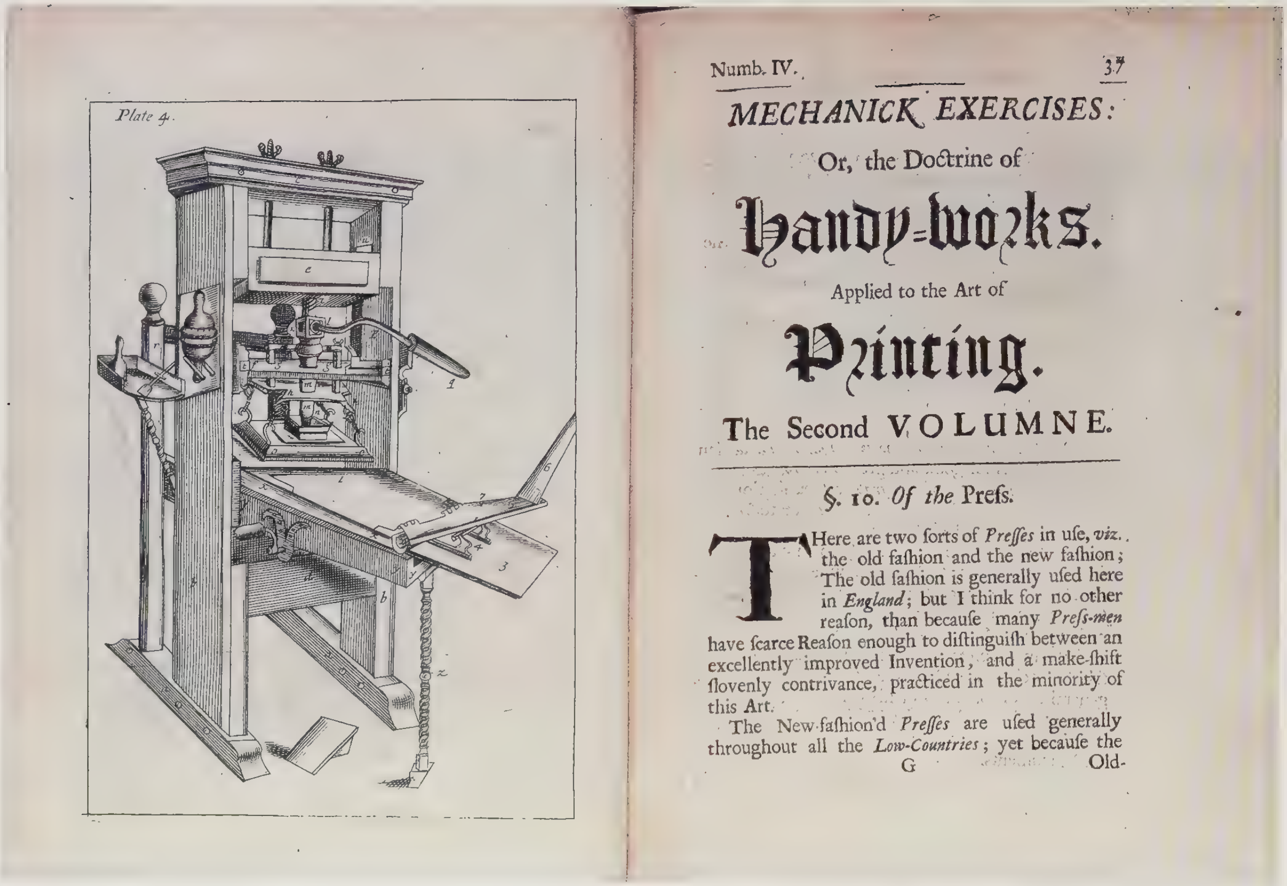
Collation of vol. 2: 2 conjugate leaves (engraved portraits of Gutenberg and Coster), A^2 (general title dated 1683, dedication to the Bishop of Oxford, Sir Leoline Jenkins and Sir Joseph Williamson), B^4 (number I *Printing*); C-F^4 (numbers II and III *Printing*, D2=plate 1 and E2=plate 2); 2 conjugate leaves (plates 3 and 4), G-M^4 (numbers IV-VI *Printing*, I4=plate 8 and L1=plate 9), plates 5-7 inserted where they relate to the text; plate 10, N-S^4 (numbers VII-IX *Letter-Cutting*); 3 pairs of conjugate leaves and a singleton (plates 11-17), T-Z^4 Aa-Cc^4 Dd^2 (numbers X-XIII *Mold-Making, Sinking the Matrices, Casting and Dressing of Printing-Letters*), 2 pairs of conjugate leaves and a singleton (plates 18-22); Ee-Nn^4 (numbers XIV-XVII *Compositers Trade*), 3 pairs of conjugate leaves (plates 23-28); Oo-Zz^4 Aaa-Fff^4 (numbers XVIII-XXIV *Press-mans Trade*, Fff4 blank), 2 pairs of conjugate leaves and a singleton (plates 29-33).

The 39 engraved plates and 14 full-page engravings show tools, furnaces, locks, wainscoting, machines; portraits of the inventors of printing, compositor's cases and their lay, composing sticks, galleys, printing presses and their separate parts, punchcutter's tools, typefaces, casting tools, imposition, wetting and drying the sheets, knocking up the balls, pressing the piles. (Some minor staining and browning.) Contemporary or early-18th-century English bindings: vol. 1 blind-panelled mottled calf, the central compartment plain, pointillé flower tool at the angles, gilt spine with red morocco lettering piece, blue-marbled edges, (joints and corners worn); vol. 2 blind-panelled reversed calf, blue-marbled edges not uniform with those of vol. 1, (rebacked, original spine-strip and red morocco lettering piece laid down, corners repaired).

Provenance: a member of the Bridgeman family, Earls of Bradford (18th or 19th-century armorial bookplates on general title versos, the shelfmark inscription on pastedowns presumably belongs to this library); C.E. Kenney (booklabel, Sotheby sale, 22 May 1967, lot 3031).



687



Numb. IV. 37

MECHANICK EXERCISES:

Or, the Doctrine of

Handy-works.

Applied to the Art of

Printing.

The Second VOLUMNE.

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§. 10. *Of the* Preſs.

THere are two ſorts of *Preſſes* in uſe, *viz.* the old faſhion and the new faſhion; The old faſhion is generally uſed here in *England*; but I think for no other reaſon, than becauſe many *Preſs-men* have ſcarce Reaſon enough to diſtinguiſh between an excellently improved Invention, and a make-ſhift ſlovenly contrivance, practiced in the minority of this Art.

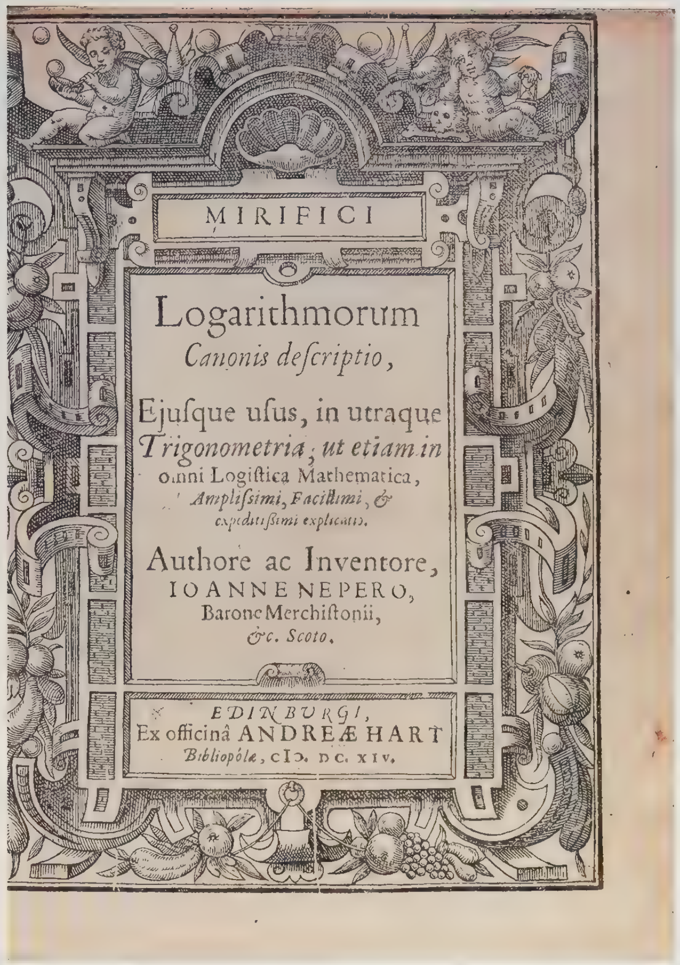
The New-faſhion'd *Preſſes* are uſed generally throughout all the *Low-Countries*; yet becauſe the

G Old-

THE FIRST ENGLISH BOOK PUBLISHED IN PARTS. Second edition of vol. 1 numbers I-II, second issue of the FIRST EDITIONS of vol. 1 numbers III-XIV; FIRST EDITION of vol. 2. The two volumes were joined in the 18th or early-19th century to form A VERY FINE SET OF THIS IMPORTANT BOOK RARELY FOUND COMPLETE. The first edition of vol. 1 number III is particularly scarce as it too — like the first two numbers — was reprinted for this second issue. A rather appropriate accident for this book occurred in perfecting sheet Ddd in vol. 2 of this copy; a single piece of type had strayed or fallen onto the outer forme and a clear impression of its shank and beard can be seen in the lower outer blank corner of Ddd4v.

Moxon was a hydrographer, mathematician and bookseller. He published books on navigation, mathematics, architecture, astronomy, geography (becoming map printer to the King shortly after 1660), but his principal work remains *Mechanick Exercises*. Having begun in January 1677 and issuing monthly parts, he intended to instruct his readers in all the chief trades of his day. Interrupted by the Popish plot, "which took off the minds of my few Customers from buying," he resumed in 1683 by reprinting the first three numbers, reissuing the remainder of vol. 1 and composing a practical manual of printing to form vol. 2, THE EARLIEST PRINTING MANUAL IN ANY LANGUAGE EVER PUBLISHED. It served as the standard text on the subject for well over a hundred years, while today it serves as the primary source for the study of early printing shop practices and terminology. Bigmore & Wyman II, 54; Moxon, *Mechanick exercises*, ed. Davis and Carter, preface and introduction pp vii-ix, xix-lv; Wing M-1303 and M-1304; Norman 1561

Estimate: $50,000-70,000



MIRIFICI

Logarithmorum
Canonis deſcriptio,

Ejuſque uſus, in utraque
Trigonometria; ut etiam in
omni Logiſtica Mathematica,
Ampliſſimi, Facillimi, &
expeditiſſimi explicatio.

Authore ac Inventore,
IOANNE NEPERO,
Barone Merchiſtonii,
&c. Scoto.

EDINBURGI,
Ex officinâ ANDREÆ HART
Bibliopôlæ, CIↃ. DC. XIV.

3688

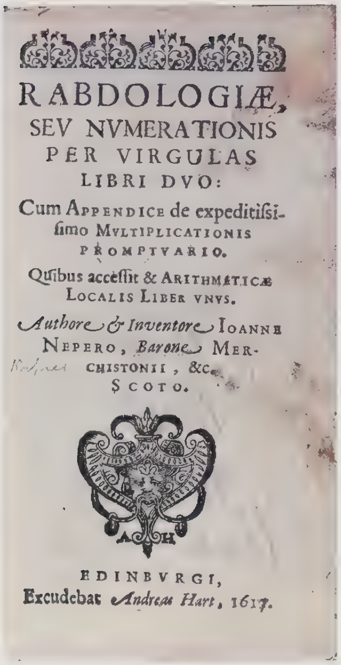
NAPIER, John (1550-1617). *Mirifici logarithmorum canonis descriptio.* Edinburgh: Andrew Hart, 1614.

4° (194 x 143 mm). Woodcut title-page border, numerous woodcut diagrams in text. (Some very minor pale spotting.) Modern half morocco gilt. *Provenance*: 19th-century bibliographical notation on front flyleaf; Samuel Maynard, London (bookseller's label on title-page verso).

EXCEEDINGLY RARE FIRST EDITION, FIRST ISSUE, PRESENTING NAPIER'S INVENTION OF LOGARITHMS. "His 'Description of the Wonderful Table of Logarithms' is unique in the history of science in that a great discovery was the result of the unaided original speculation of one individual without precursors and almost without contemporaries in his field. Napier began work on his tables in 1594, but it was twenty years before he was ready to publish them, in this thin quarto volume of ninety pages" (PMM). Napier's logarithms reduced multiplication and division to a simple process of addition and subtraction, and the extraction of roots to division. "The idea of using logarithms in mathematics was accepted almost instantly, and the slide rule, one of the most important offspring of logarithms, lasted for more than 300 years, until solid-state electronics finally replaced it" (Shurkin, p. 30). Napier's invention was immediately adopted by mathematicians both in England and on the continent, including Briggs (see lot 334) and Ursinus, who introduced logarithms to Kepler.

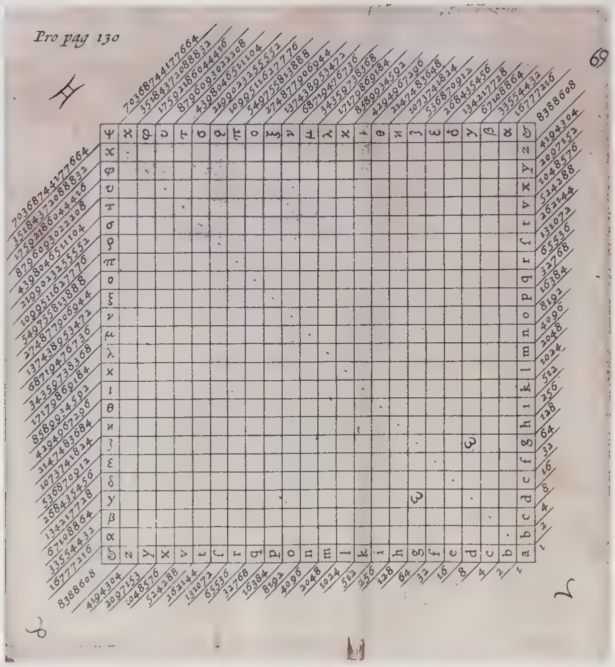
The Norman copy is of the first issue, with m1 verso blank and pages 14-15 misnumbered 22-23, respectively. The second issue contains an "Admonitio" on M1v stating the author's intention of publishing an improved form of logarithm, and the pagination is often corrected. Dibner *Heralds of Science* 106; Grolier/Horblit 77a; PMM 116; Joel Shurkin, *Engines of the Mind: A History of the Computer*, (New York, 1984), pp. 28-31; STC 18349; Norman 1573.

Estimate: $20,000-30,000



RABDOLOGIÆ,
SEV NVMERATIONIS
PER VIRGULAS
LIBRI DVO:
Cum Appendice de expeditiſsi-
ſimo Mvltiplicationis
Promptvario.
Quibus acceſsit & Arithmeticæ
Localis Liber vnvs.
Authore & Inventore Ioanne
Nepero, *Barone* Mer-
chistonii, &c.
Scoto.

EDINBVRGI,
Excudebat *Andreas Hart*, 1617.



689

○689

NAPIER, John (1550-1617). *Rabdologiae seu numerationis per virgulas libri duo*. Edinburgh: Andrew Hart, 1617.

12/so (142 x 76 mm). 4 folding engraved tables, engraved and woodcut diagrams in text. (Some dampstaining and soiling to text and tables.) 19th-century dark green morocco gilt, covers with gilt coat-of-arms, gilt edges. *Provenance*: early mathematical calculations and deleted signatures on front flyleaf; George Granville Leveson-Gower, first Duke of Sutherland (1758-1833) (with his gilt arms on covers and those of his wife, suo jure Countess of Sutherland, in pretence); later inscription on front free endpaper: "Old Library Dunrobin / rebound London 1849. / S."

FIRST EDITION. One of the earliest forms of mechanized calculation was presented in Napier's work entitled *Rabdologiae*, a term used to describe his invention of numeration by little rods of wood or ivory (known as "Napier's bones"). "Each of the ten rods had numbers inscribed in geometric squares which, in multiplication, were arranged by digit and the products recorded and added. Later the rods were mounted on a rotatable cylinder and an arrangement of these in a box constituted a calculator" (Dibner). Napier's work represents an attempt to devise more efficient ways of calculation by the use of rudimentary calculating devices. Other methods include the "aereal abacus," consisting of a checkerboard with counters expressing numbers in the binary scale, and the "promptuary" or "lightening calculator." This "deals with a more complicated system of multiplication by engraved rods and strips, which has been called the first attempt at the invention of a calculating machine" (DSB). VERY RARE. Dibner *Heralds of Science* 107; STC 18357; Norman 1574.

Estimate: $8,000-12,000

ↄ690

[NEEDHAM, John Turbeville (1713-1781)]. *An Account of some New Microscopical Discoveries*. London: for F. Needham, 1745.

8° (215 x 132 mm). 6 folding engraved plates. (Some dampstaining to text and plates.) (Some marginal soiling.) Original paper-backed blue boards, uncut (boards worn and somewhat stained).

FIRST EDITION, FIRST ISSUE, with the earliest wording of the title and dedication pages. From his microscopic observations that when he placed pollen grains in water many of them burst into masses of tiny globules, Needham concluded that the globules constituted a fertilizing substance. "Needham's most important contributions to science were early observations of plant pollen and the milt vessels of the squid, a forward-looking theory of reproduction, and a classic experiment for determining whether spontaneous generation occurs on the microscopic level" (DSB). Norman 1576.

[*With*:]

NEEDHAM, John Turbeville. *New Microscopical Discoveries; containing Observations*. London: for F. Needham, 1745.

8° (196 x 117 mm). 6 folding engraved plates. Contemporary mottled calf, spine gilt. FIRST EDITION, second issue, with new title and dedication. FINE COPY. Norman 1577.

(2)

Estimate: $1,000-1,500

ↄ691

NEEDHAM, Walter (ca. 1631 - ca. 1691). *Disquisitio anatomica de formato foetu*. London: William Godbid for Radulph Needham, 1667.

8° (166 x 106 mm). 7 folding engraved plates. (Some minor soiling, small rust hole on F4 catching a few letters.) 18th-century mottled calf gilt (a little wear at spine ends); cloth folding case. *Provenance*: Weston Library (bookplate).

FIRST EDITION OF THIS FOUNDING WORK ON DEVELOPMENTAL CHEMICAL EMBRYOLOGY. Needham's work is the "first book to report chemical experiments on the developing mammalian embryo, and the first to give practical instructions on dissection of embryos" (Garrison-Morton). Needham also gave the first description of the solid bodies in the amniotic fluid, and provided a comparative account of the secondary apparatus of generation. Garrison-Morton 467.2; Wing N-411; Norman 1579.

Estimate: $600-800

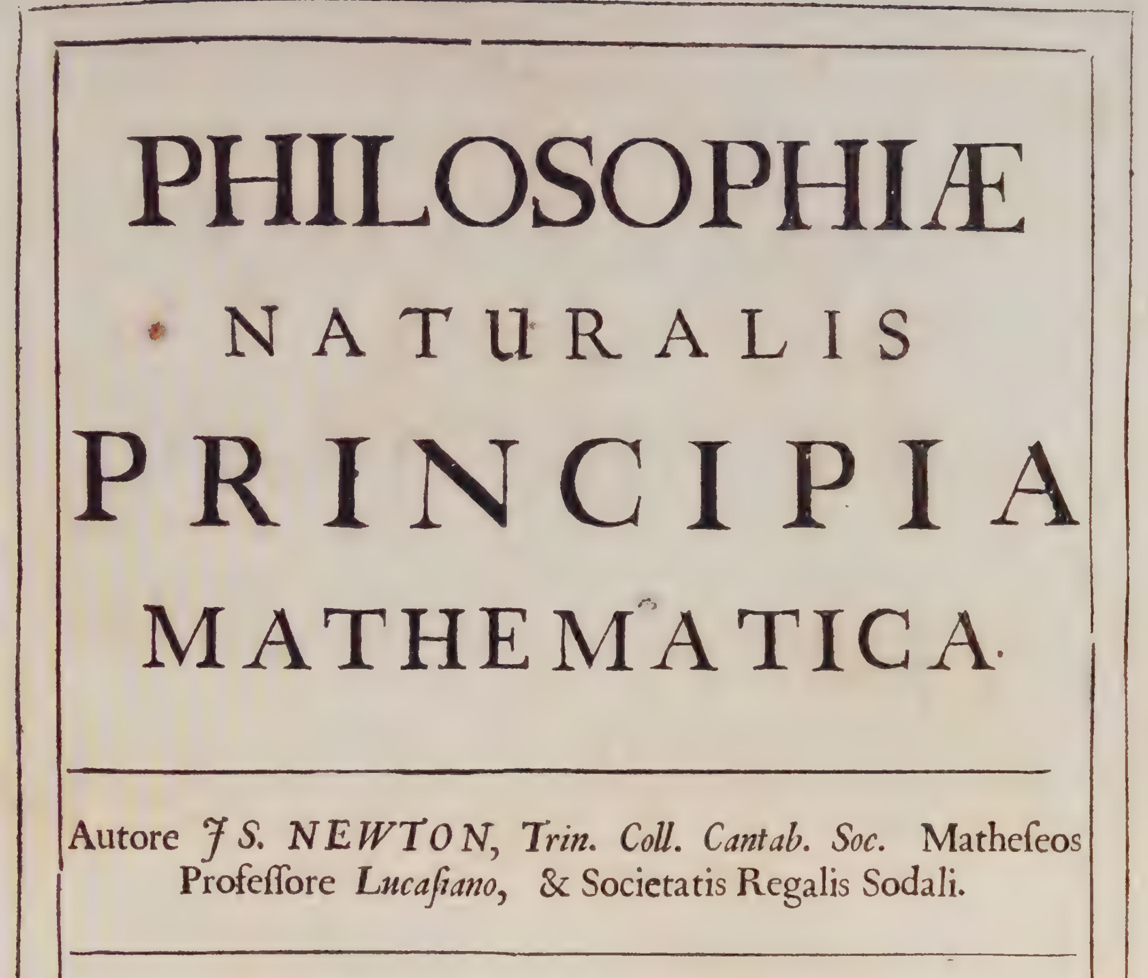
›692

NEWTON, Sir Isaac (1642-1727, knighted 1705). *Philosophiae naturalis principia mathematica.* [Edited by Edmond Halley (1656-1743).] London: Joseph Streater for the Royal Society [at the expense of Edmond Halley], to be sold by Samuel Smith and other booksellers, 1687.

Median 4° (242 x 182 mm). Collation: A^4 (±1 title in second state with Smith's imprint added, 2 author's dedication to the Royal Society, 3 preface to the reader, 4 Halley's Latin ode to Newton); B-O^4 P^4(±4) Q-V^4 W^4 X-Z^4 Aa-Uu^4 Ww^4 Xx-Zz^4 $***^4$ (*Definitiones, De motu corporum* books 1-2); Aaa-Nnn^4 Ooo^4 (*De mundi systemate* book 3, ±Ooo4 errata); folding engraved plate (155 x 340 mm) of cometary orbit, inserted at the end. Woodcut and typographical diagrams. (Marginal repair to Nn1, quire Ss browned.) Contemporary French sprinkled calf, gilt spine, red-and-green sprinkled edges, morocco fall-down-back box.

Provenance: an early or mid-18th-century French mathematician, who evidently read what Newton himself called this "hard Book" and has annotated proposition 1 section 2 (p. 37) and proposition 4 section 2 (pp 41-42): manuscript calculations in brown ink, 2¼ pp, on two half sheets (bell watermark, papermaker's name P. Bouson, crown surmount), loosely inserted, brief manuscript references at corollaries 3-5 on p. 42 apparently in the same hand.

FIRST EDITION OF THE MOST IMPORTANT WORK IN THE HISTORY OF SCIENCE, "perhaps the greatest intellectual stride that it has ever been granted to any man to make" (Einstein). The edition was divided between two compositors working concurrently, one setting the first two books, the



PHILOSOPHIÆ NATURALIS PRINCIPIA MATHEMATICA.

Autore *J S. NEWTON*, *Trin. Coll. Cantab. Soc.* Matheſeos
Profeſſore *Lucaſiano*, & Societatis Regalis Sodali.

IMPRIMATUR.
S. PEPYS, *Reg. Soc.* PRÆSES.
Julii 5. 1686.

LONDINI,
Juſſu *Societatis Regiæ* ac Typis *Joſephi Streater*. Proſtant Venales apud *Sam. Smith* ad inſignia Principis *Walliæ* in Cœmiterio
D. *Pauli*, alioſq; nonnullos Bibliopolas. *Anno* MDCLXXXVII.

other setting the third. W. Todd has identified a number of stop-press corrections, while P4 was cancelled to correct the orientation of the woodcut figure on verso. Two apparently simultaneous or near-simultaneous issues can be distinguished, identified by their title in uncancelled or cancelled state. One was distributed by Halley and Newton themselves through a number of unnamed booksellers, the other was largely turned over to Samuel Smith for distribution on the Continent. (H. Zeitlinger first noticed the frequent occurrence of foreign bindings on copies of the Smith issue.) The Norman copy in its original French binding belongs to the Continental issue, which is strikingly rarer than the British one.

"Following the pioneer researches of Galileo in the study of motion and its mathematical analysis and the important contributions of Descartes and Huygens, the scientific revolution of the seventeenth century culminated in the massive achievements of Newton in dynamics and gravitational astronomy. Kepler's law of planetary motion came to be gradually accepted in the latter half of the century and unsuccessful attempts were made to account for them in terms of a central force emanating from the sun. The dependence of such a force on the inverse square of the distance was suggested by Robert Hooke, in particular, but neither he nor his scientific colleagues in London could prove that Kepler's laws follow mathematically from a law of this form" (PMM). Halley put the problem to Newton, who showed that his LAW OF GRAVITY would cause a planet to move in an ellipse about the sun as focus. Halley then saw Newton's mathematical analysis of motion through the press, and also bore the cost of printing, the Royal Society's funds having been depleted. Newton's new principles were based on his own innovations in mathematics. He showed that the dramatic aspects of nature that were subject to the universal law of gravitation could be explained, in mathematical terms, within a single physical theory. His work provides a great synthesis of the cosmos and proves its physical unity. Newton's scientific views were not seriously challenged until Planck's quantum theory and Einstein's theories of relativity, but his principles and methods remain essential for the solution of many scientific problems.

The Norman copy is IN EXTREMELY FINE CONDITON, the paper fresh and the binding unrestored. Babson/Newton 10; I.B. Cohen, *Introduction to Newton's "Principia"*, ch. iv; Dibner 11; Horblit 78; A.N.L. Munby, "The two title-pages of Newton's Principia" in *Notes and Records of the Royal Society* 10 (1952); PMM 161; W. Todd's bibliography in Koyré & Cohen's ed. of Newton's *Principia* II, 851-3; Wallis 7; Wing N-1049; Norman 1586.

Estimate: $80,000-120,000

693

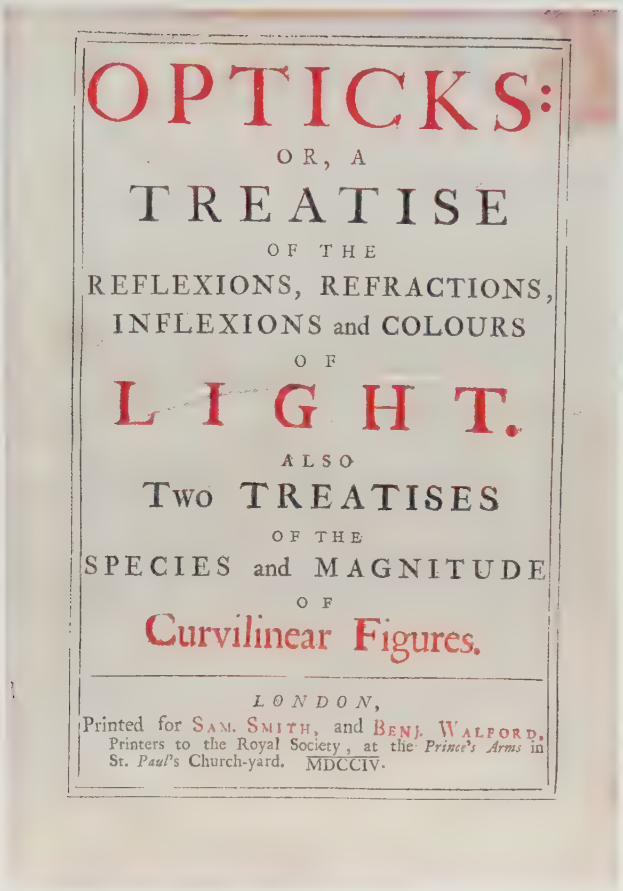
NEWTON, Sir Isaac (1642-1727). *The mathematical principles of Natural Philosophy*. Translated by Andrew Motte (d. 1730). - John MACHIN (d. 1751). *The Laws of the Moon's Motion, according to Gravity*. London: for Benjamin Motte, 1729.

2 volumes, 8° (196 x 117 mm). 2 engraved frontispieces by A. Motte, 2 folding letterpress tables, 47 folding engraved plates, 3 engraved headpieces by Motte. (Some minor marginal worming occasionally touching letters, minor spotting and dampstaining, mostly marginal, paper flaw on Y4 in Vol. 2 affecting a few letters slightly.) Contemporary speckled calf gilt (few small repairs, minor wear). *Provenance*: Christopher O'Brien (signature on titles dated 1741); Marine Guard (ink stamp on titles).

FIRST EDITION IN ENGLISH of the *Principia*. This edition also includes an English translation of Newton's *System of the World* (see lot 698), presumably by Motte. John Machin's unsuccessful attempt to rectify Newton's lunar theory is included at the end. Babson/Newton 20; Gray 23; Wallis 23; Norman 1587.

(2)

Estimate: $2,500-3,500



OPTICKS:
OR, A
TREATISE
OF THE
REFLEXIONS, REFRACTIONS,
INFLEXIONS and COLOURS
OF
LIGHT.
ALSO
Two TREATISES
OF THE
SPECIES and MAGNITUDE
OF
Curvilinear Figures.

LONDON,
Printed for SAM. SMITH, and BENJ. WALFORD,
Printers to the Royal Society, at the *Prince's Arms* in
St. *Paul's* Church-yard. MDCCIV.

694

NEWTON, Sir Isaac (1642-1727). *Opticks: or, a Treatise of the Reflexions, Refractions, Inflexions and Colours of Light. Also Two Treatises of the Species and Magnitude of Curvilinear Figures.* London: for Samuel Smith and Benjamin Walford, 1704.

4° (240 x 173 mm). Title printed in red and black. 19 folding engraved plates (a few plates with very minor marginal stains). Contemporary blind-stamped mottled calf (rebacked to match preserving original lettering piece). *Provenance*: Le Gendré Pierce Starkie (engraved armorial bookplate).

FIRST EDITION, SUMMARIZING NEWTON'S DISCOVERIES AND THEORIES CONCERNING LIGHT AND COLOR. Newton's study of light and optics began while an undergraduate at Cambridge, and continued later at his home in Lincolnshire during the plague years of 1665-66. He investigated the behavior of light both experimentally and mathematically, and concentrated on the spectrum of colors. *Opticks* contains Newton's summarization of his discoveries and theories concerning light and color, from his first published paper (see lot 716) onward. "The core of his work was the observation that the spectrum of colours (formed when a ray of light shines through a glass prism) is stretched along its axis, together with his experimental proof that rays of different colours are refracted to different extents. This causes the stretching, or dispersion, of the spectrum. All previous philosophers and mathematicians had been sure that white light is pure and simple, regarding colours as modifications or qualifications of the white. Newton showed experimentally that the opposite is true" (PMM). In contrast to the belief in the simple composition of natural white light, Newton demonstrated that natural white light is a compound of many pure elementary colors which could be separated and recombined at will.

The first edition of *Opticks* also contains Newton's first mathematical papers in print, and these two mathematical papers (in Latin) were added to assert Newton's priority to the discovery of the calculus over Leibniz. A VERY FINE COPY. Babson/Newton 132; Dibner *Heralds of Science* 148; Grolier/Horblit 79b; PMM 17; Wallis 174; Norman 1588.

Estimate: $10,000-15,000

695

NEWTON, Sir Isaac (1642-1727). *Optice: sive de reflexionibus, refractionibus, inflexionibus & coloribus lucis libri tres ... accedunt tractatus duo ejusdem authoris de speciebus & magnitudine figurarum curvilinearum, latine scripti.* Translated by Samuel Clarke (1675-1729). London: Samuel Smith and Benjamin Walford, 1706.

4° (237 x 190 mm). 19 folding engraved plates. (Some pale dampstaining to text and plates, front blank endpages loose.) Contemporary blind-panelled calf (rebacked, corners repaired). *Provenance*: Arthur Reid Bostock (engraved armmorial bookplate).

FIRST EDITION IN LATIN. This edition contains seven added *quaestiones* (nos. 17-23), which are partly devoted to Newton's support for the corpuscular (or emission) theory of light, and not found in the English edition. It also includes the two mathematical works at end as in the English edition (see lot 694). As in most copies of the *Optice*, leaf Ss1 is a cancel, allegedly because Newton had second thoughts about calling universal space 'the sensorium of God' (*sensorium Dei*) in questio 20. Babson/Newton 137; Wallis 179; Norman 1589.

Estimate: $1,000-1,500

696

NEWTON, Sir Isaac (1642-1727). *Analysis per quantitatum series, fluxiones, ac differentias: cum enumeratione linearum tertii ordinis.* Edited by William Jones (1675-1749). London: ex officina Pearsoniana, 1711.

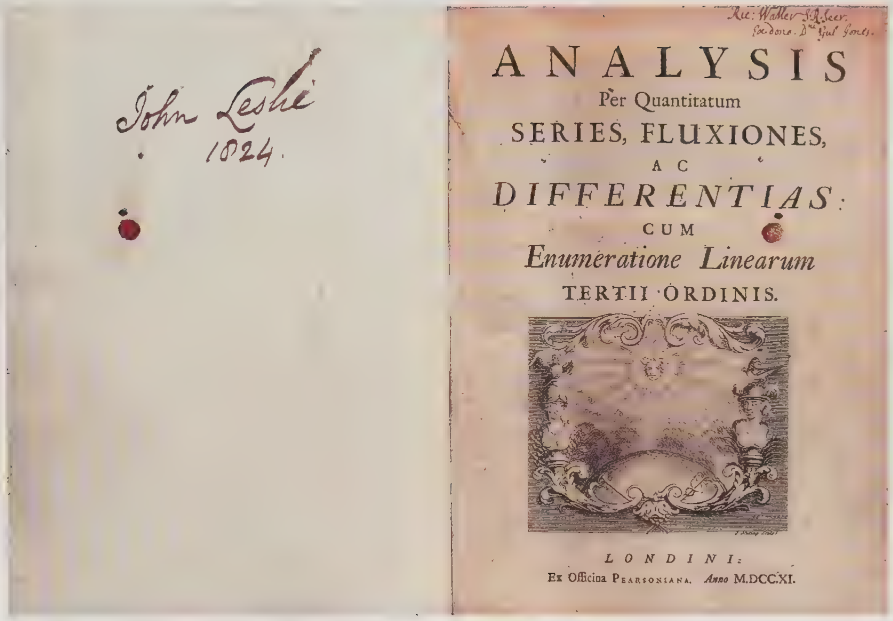
4° (227 x 172 mm). Engraved title-page vignette, engraved head- and tail-pieces, 2 engraved folding tables, numerous woodcut diagrams in text. (Title-page slightly soiled with a few minor stains, some minor marginal browning.) Contemporary blind-panelled calf (rebacked, corners repaired); cloth folding case.

Provenance: Richard Waller, secretary of the Royal Society (inscription on the title-page: "Ric: Waller S.R. Secr. ex dono Dni Gul. Jones"); John Leslie (1766-1832), physicist (signature on front flyleaf dated 1824 and his? 23-page manuscript copy of excerpts relating to the Leibnitz/Newton debate); Edward Nelson (signature on front flyleaf dated 1833).

FIRST EDITION. PRESENTATION COPY FROM THE EDITOR, WILLIAM JONES, TO THE SECRETARY OF THE ROYAL SOCIETY. Newton's first independent treatise on the higher mathematics, containing his discovery of the differential calculus. This work includes the first printed appearances of Newton's *De analysi per aequationes numero terminorum infinitas* and *Methodus differentialis*, as well as reprints of the tracts on quadratures and cubics first published in *Opticks* (see lots 694 and 695). *De analysi*, originally written in 1669 to protect his priority in the invention of the calculus, contains the earliest printed account of the binomial theorem. "In 1711, Newton permitted mathematician William Jones (one of the few allowed access to Newton's manuscripts) to publish these four tracts; aside from his association with Newton, Jones is chiefly remembered for having introduced the symbol π into mathematical notation" (Norman). AN OUTSTANDING ASSOCIATION COPY. Babson/Newton 207; Wallis 293; Norman 1590.

[*Bound with*:]

[NEWTON, Isaac]. COLLINS, John. *Commercium epistolicum D. Johannis Collins, et aliorum de analysi promota: jussu societatis regiae in lucem editum.* London: typis Pearsonianis, 1712. 4°. Numerous woodcut diagrams in text. (Some light marginal browning and spotting). FIRST EDITION, variant state of p. 34 with catchword corrected to *rei*. The official report of the Royal Society on the dispute between Leibnitz and Newton over priority in the discovery of calculus, ruling in Newton's favor; the substantive parts of the report were drafted largely by Newton himself. The work was printed for presentation only. Babson/Newton 186; Wallis 238; Gjertsen *The Newton Handbook*, pp. 127-29; Norman 1591. Bound at the end are 23 pages of manuscript notes in a 19th-century hand (mostly excerpts of correspondence, etc.) relating to the Leibnitz/Newton controversy (see provenance note).



John Leslie
1824.

Ric: Waller S.R.Secr.
Ex dono. D^ni Gul Jones.

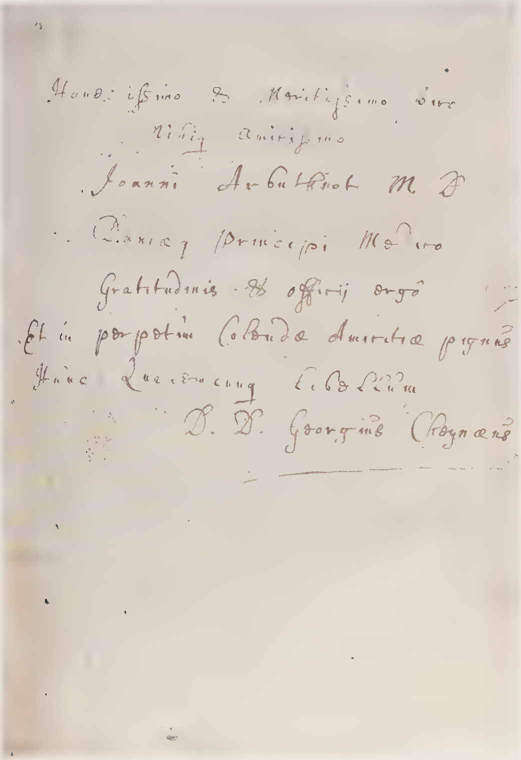
ANALYSIS
Per Quantitatum
SERIES, FLUXIONES,
AC
DIFFERENTIAS:
CUM
Enumeratione Linearum
TERTII ORDINIS.

LONDINI:
Ex Officina PEARSONIANA. Anno M.DCC.XI.

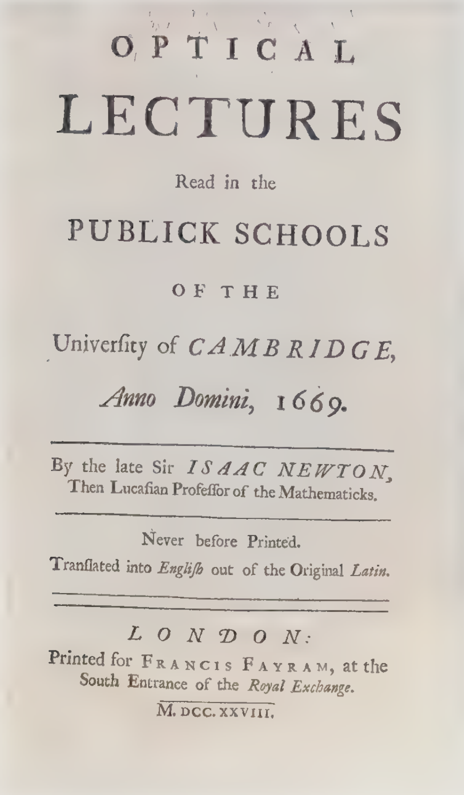
[*Bound with:*]

CHEYNE, George (1671-1743). *Fluxionum methodus inversa; sive quantitatum fluentium leges generaliores*. London: J. Matthews for R. Smith, 1703. 4°. (Some inner marginal dampstaining.) *Provenance*: John Arbuthnot (1667-1735), physician and author of the political satire *The History of John Bull*, published in 1712 (presentation inscription from the author on the front free endpaper). FIRST EDITION. PRESENTATION COPY FROM CHEYNE TO JOHN ARBUTHNOT. Norman 470.

Estimate: $15,000-20,000



Hono: issimo & Meritissimo viro
Mihiq amicissimo
Joanni Arbuthnot M D
Reginæq Principi Medico
Gratitudinis & officij ergô
Et in perpetim Colendæ Amicitiæ pignus
Hunc Qualemcunq Libellum
D. D. Georgius Cheynæus



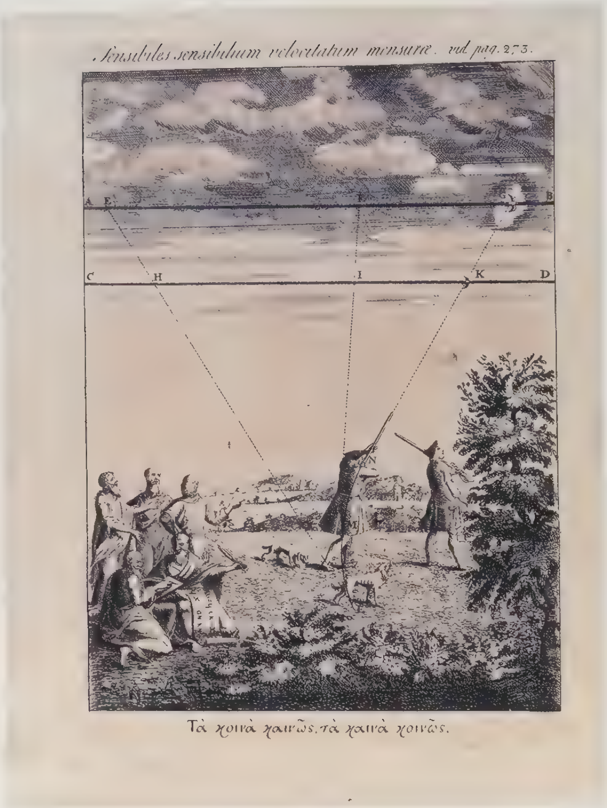
OPTICAL
LECTURES
Read in the
PUBLICK SCHOOLS
OF THE
Univerſity of *CAMBRIDGE*,
Anno Domini, 1669.

By the late Sir *ISAAC NEWTON*,
Then Lucaſian Profeſſor of the Mathematicks.

Never before Printed.
Tranſlated into *Engliſh* out of the Original *Latin*.

LONDON:
Printed for FRANCIS FAYRAM, at the
South Entrance of the *Royal Exchange*.
M.DCC.XXVIII.

697


Sensibiles sensibilium velocitatum mensuræ. vid pag. 273.
A
E
B
C
H
I
K
D
Τὰ κοινὰ καινῶς, τὰ καινὰ κοινῶς.

700

›697

NEWTON, Sir Isaac (1642-1727). *Optical Lectures read in the publick schools of the University of Cambridge, anno Domini, 1669*. London: for Francis Fayram, 1728.

8° (194 x 118 mm). 13 folding engraved plates. Contemporary sprinkled calf gilt; cloth folding case (oversize).

FIRST EDITION of Newton's lectures on optics that he gave on the assumption of the Lucasian chair in 1669, at the age of twenty-six. These exist as two complete, but very different, treatises, one deposited in the University Library most likely in the hand of his roommate John Wickins, and the other in Newton's hand which remained in his possession. They differ notably in their textural content, in their respective division of lectures and the alleged dates they were delivered. A Latin and an English version, both based on the deposited manuscript although differing in textual detail and completeness, were published after Newton's death. This English version was published a year before the Latin version (see lot 699), and does not include a translation of the second part of Newton's Latin text since, according to the preface, it was "left imperfect" and "has since been published in the *Opticks* by Sir Isaac himself with great Improvements." The first part, composed of four sections, is published here for the first time. A VERY FINE COPY. Babson/Newton 154; Wallis 190; Norman 1592.

Estimate: $2,500-3,500

698

NEWTON, Sir Isaac (1642-1727). *A Treatise of the System of the World*. London: for F. Fayram, 1728.

8° (217 x 138 mm). 2 engraved plates, woodcut diagrams in text. (Title-page lightly soiled, otherwise fine). 18th-century morocco-backed vellum over boards, spine gilt, uncut (joints starting at ends). *Provenance*: early shelf-mark on front pastedown.

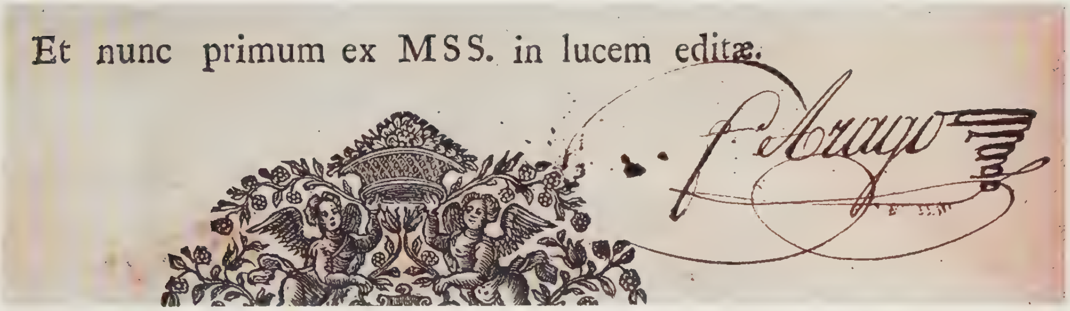
FIRST EDITION IN ENGLISH. The first English translation of *De mundi systemate* was originally intended as the third book of the *Principia*. The translator was probably Andrew Motte. The first edition with text in Latin was also published in the same year. FINE UNCUT COPY. Babson 18; Wallis 30; Norman 1593.

Estimate: $1,000-1,500

699

NEWTON, Sir Isaac (1642-1727). *Lectiones opticae, annis MDCLXIX, MDCLXX & MDCLXXI. In scholis publicis habitae: et nunc primum ex MSS. in lucem editae*. London: William Innys, 1729.

4° (221 x 168 mm). 24 folding engraved plates (occasional pale spotting). (Some minor scattered foxing and light spotting, mostly marginal). Contemporary speckled calf (rebacked in sheep, some wear to corners). *Provenance*: Dominique François Jean Arago (1786-1853), physicist who investigated the physical phenomena of light, and who suggested the "crucial experiment" which supported Young's wave theory over Newton's corpuscular theory of light (signature on title-page "F. Arago").



Et nunc primum ex MSS. in lucem editæ.

F. Arago

FIRST EDITION. AN IMPORTANT ASSOCIATION COPY, BELONGING TO THE PHYSICIST FRANÇOIS ARAGO. Both the English and Latin editions of Newton's optical lectures are based on the Wickins version deposited in the University Library. Although the English edition preceded the Latin, this was the first to publish the complete lectures (including the second part).

"After his return from the geodetic expedition to extend meridian triangulations from Barcelona to the Balearic Islands (see lot 660), Arago became a vocal critic of the Newtonian emission theory and, by 1816, an ardent supporter of the undulatory theory" (DSB). In 1838 Arago borrowed and amplified the idea and apparatus from Wheatstone's experiments for measuring the speed of electricity, and suggested the "crucial experiment" to decide between the corpuscular and undulatory theories of light by comparing the speed of light in water and in air. The experiment, which vindicated the undulatory position, was carried out by Foucault in 1850 and announced to the Academy in Arago's presence. Babson/Newton 155; Wallis 190; Norman 1594.

Estimate: $1,500-2,500

5700

NEWTON, Sir Isaac (1642-1727). *The Method of Fluxions and Infinite Series; with its Application to the Geometry of Curve-Lines.* Translated by John Colson (1680-1760). - John COLSON. *...A Perpetual Comment upon the foregoing Treatise.* London: Henry Woodfall for John Nourse, 1736.

4° (245 x 194 mm). Engraved frontispiece, woodcut diagrams in text. Contemporary sprinkled calf gilt (joints cracked, corners worn).

FIRST EDITION. Newton's *Methodus fluxionum* was originally prepared in 1671, but remained unpublished until this English translation by John Colson. In it he presents a method of determining the magnitudes of finite quantities by the velocities of their generating motions. At its time of preparation, it was Newton's fullest exposition of the fundamental problem of the calculus, in which he presented his successful general method. It was not published in its original Latin until 1779. A CRISP CLEAN COPY. Babson/Newton 171; Wallis 232; Norman 1595.

Estimate: $3,500-4,500

5701

OUGHTRED, William (1575-1660). *Arithmeticae in numeris et speciebus institutio: quae tum logisticae, tum analyticae, atque adeo totius mathematicae, quasi clavis est.* London: Thomas Harper, 1631.

8° (154 x 101 mm). Woodcut diagrams in text. (Some pale dampstaining.) 17th-century limp vellum. *Provenance*: a few early marginalia.

VERY RARE FIRST EDITION OF OUGHTRED'S BEST-KNOWN WORK. The *Clavis mathematicae* "exerted considerable influence in England and on the Continent and immediately established him as a capable mathematician. Both Boyle and Newton held a very high opinion of the work" (DSB). It contained almost all that was then known about arithmetic and algebra, and introduced a number of mathematical symbols: the most important being the "x" for multiplication and "::" to indicate proportion. An English translation was published by Edmond Halley in 1694. Oughtred's name is also important in mathematics as the inventor of the slide-rule. STC 18898; Norman 1621.

Estimate: $3,000-4,000

5702

OUGHTRED, William (1575-1660). *The Key of the Mathematicks new Forged and Filed: Together with a Treatise of the Resolution of all kinde of affected aequations in numbers.* Translated by Robert Wood (ca. 1622-1685). London: Thomas Harper, for Richard Whitaker, 1647.

8° (147 x 92 mm). Collation: b^8 (-b1 and b8 presumably blank) B-O^8. 110 leaves. Folding engraved frontispiece portrait of the author after Wenceslaus Hollar (clean tear at lower image), 11 engraved plates at end, including one with volvelle and 2 on recto and verso of same leaf, numerous engraved diagrams in text. (Some pale dampstaining at end.) Modern calf.

FIRST EDITION IN ENGLISH. Includes a short treatise at end entitled "A most easie way for the delineation of Plaine Sun-dials, only by Geometry," and is illustrated with a sun-dial plate with volvelle and other engraved plates. Wing O-582; Norman 1622.

Estimate: $1,000-1,500

703

PARKINSON, John (1567-1650). *Theatrum botanicum: The Theater of Plants. Or, an herball of a large extent: Containing therein a more ample and exact History and declaration of the Physicall Herbs and Plants that are in other Authours, encreased by the accesse of many hundreds of new, rare, and strange Plants from all the parts of the world.* London: Thomas Cotes, 1640.

One volume bound in 2, 2° (414 x 266 mm., large and thick paper). Additional engraved title by William Marshall (Johnson 79) (with duplicate engraved title, inlaid to size, bound before leaf 4N1 at beginning of second volume), errata leaf at end, 2716 quarter-page woodcuts in the text, woodcut initials, factotums, and head- and tail-piece ornaments (some browning and staining at end of first part.) Contemporary black morocco, covers gilt-panelled with central gilt lozenge ornament, gilt edges (rebacked, preserving original backstrip). *Provenance:* Irene Bernhard Hoffmann; Carleton P. Richmond (bookplates on front pastedowns).

FIRST EDITION, of this classic British herbal, "one of the two main pillars of botany in England till the time of Ray" (Henrey, p. 79, quoting the 19th-century botanist Sir James Edward Smith). Parkinson's vast survey of the botanical world was eclipsed during his lifetime by Johnson's edition of Gerard's herbal and by his own popular treatise on horticulture, *Paradisus terrestris,* and was dismissed after his death as a plagiary of Lobel. In fact Parkinson's *magnum opus* was largely an original work: although like all botanical writers of the period he did borrow from contemporary and earlier herbalists, and availed himself of information in an unpublished manuscript of Lobel which he had purchased after the latter's death, Parkinson's work was not simply derivative. The 4,000 plants that he described exceeded by 1,000 the subjects of Gerard's *Herbal,* and include the names of 28 British species not previously recorded, among them the strawberry tree (*Arbutus unedo*) of western Ireland, and the lady's slipper orchid (*Cypripedium calceolus*) of Lancashire. "The descriptions in many instances are new, and great care was exercised to secure accuracy in indicating localities... His arrangement, founded sometimes on medicinal qualities, sometimes on habitat, sometimes on apparent botanical differences, shows how little progress was made in classification by the herbalists" of this period (Hunt, quoting J. R. Green, *History of Botany in the United Kingdom,* 1914). *Cleveland Collections* 197; Garrison-Morton 1823; Henrey 286; Hunt 235; Nissen *BBI* 1490; NLM/Krivatys 8620; STC 19302; Norman 1643.

(2)

Estimate: $3,000-4,000

704

PARRY, Caleb Hillier (1755-1822). *An Inquiry into the Symptoms and Causes of the Syncope Anginosa, commonly called Angina Pectoris.* Bath: R. Cruttwell, London: Cadell and Davies, 1799.

8° (224 x 138 mm., uncut). Contemporary boards, printed paper spine label (upper cover almost detached, some wear to spine); cloth folding case. *Provenance*: Watson Alcock (contemporary signature on paste-down).

FIRST EDITION. "In this important contribution to the understanding of the coronary circulation, Parry... reports on several patients suffering from what he termed 'syncope anginosa' and concludes that the condition is caused by disease of the coronary arteries" (*Heirs of Hippocrates*). Garrison-Morton 2888; *Heirs of Hippocrates* 1127; Osler 3622; Wellcome IV, p. 309; Norman 1646.

Estimate: $800-1,200

705

PARRY, Caleb Hillier (1755-1822). *Collections from the unpublished Medical Writings of the late Caleb Hillier Parry.* Edited by Charles Henry Parry. London: Underwoods, 1825.

3 volumes (*Introductory Essays* and vols. I-II), 8° (239 x 147 mm). Engraved plate. Contemporary boards, UNCUT AND MOSTLY UNOPENED (rebacked, old paper spine labels laid down).

FIRST EDITION. "Includes Parry's description of eight cases of exophthalmic goitre, the first of which was observed in 1786, and his notes on four cases of angina pectoris" (Garrison-Morton). Garrison-Morton 2210; Wellcome IV, p. 310; Norman 1647.

(3)

Estimate: $800-1,200

5706

[PASCAL, Blaise (1623-1662)]. *Lettres de A. Dettonville contenant quelques-unes de ses inventions de geometrie.* Paris: Guillaume Desprez, 1659.

4/so (246 x 183 mm). 4 folding engraved plates. Contemporary French vellum; full morocco folding case. *Provenance*: some headlines supplied in an early hand; armorial bookplate (dated 1922 by hand).

FIRST EDITION OF PASCAL'S THEORY OF INDIVISIBLES, A FORERUNNER OF INTEGRAL CALCULUS. After using his perfected method of indivisibles to solve several infinitesmal problems concerning the cycloid, Pascal decided to challenge the leading mathematicians of his day with these same problems. At the end of the contest Pascal published his own superior solutions in four letters published in December 1658 and January 1659 under the pseudonym A. Dettonville. In February 1659 these four pamphlets were collected in the *Lettres de A. Dettonville.* "This publication of some 120 pages has a very complex structure. The first of the *Lettres* consists of five sections with independent paginations, and the three others appear in inverse order of their composition. Thus only by returning to the original order is it possible to understand the logical sequence of the whole, follow the development of Pascal's method, and appreciate the influence on it of the new information he received and of his progress in mastering infinitesimal problems."

"The most notable characteristics of this work ... are the importance accorded to the determination of centers of gravity, the crucial role of triangular sums and statical considerations, its stylistic rigor and elegance, and the use of clear and precise geometric language that partially compensates for the absence of algebraic symbolism. Among outstanding contributions of the work are the discovery of the equality of curvature of the generalized cycloid and the ellipse; the deepening of the concept of the indivisible; a first step toward the concept of the definite integral and the determination of its fundamental properties; and the indirect recourse to certain methods of calculation, such as integration by parts" (DSB).

ONE OF THE RAREST OF PASCAL'S WORKS IN FINE CONDITION. Norman 1649.

Estimate: $15,000-20,000

5707

PASCAL, Blaise (1623-1662). *Traitez de l'équilibre des liqueurs, et de la pesanteur de la masse de l'air.* Paris: Guillaume Desprez, 1663.

12° (142 x 78 mm). 2 folding engraved plates (one with small burn hole touching image), one woodcut diagram in text. Contemporary calf, spine gilt; full morocco folding case. *Provenance*: Charles Erskine (signature on endpaper); James Erskine of Alva (bookplate).

FIRST EDITION OF THE FIRST ACCOUNT OF PASCAL'S LAW, stating that pressure in a liquid is transmitted undiminished in all directions. Divided into two closely related parts, this posthumous work is devoted to the laws of hydrostatics and to the demonstration and description of the various effects of the weight of air. Continuing the investigations of Stevin, Galileo, Torricelli, and Mersenne, he provided in the *Traités* a lucid account of the fundamental concept of pressure. "Using the recently invented Torricellian barometer, Pascal had his brother-in-law climb the Puy de Dôme in 1648 and watch the barometer level fall with the ascent, thereby demonstrating that air had weight ... The relationship of barometric change and change in the weather was first outlined here" (Dibner). A FINE COPY. Dibner *Heralds of Science* 143; Sparrow *Milestones of Science* 157; Tchemerzine V, p. 59; Waller 12161; Norman 1650.

Estimate: $3,000-4,000

LETTRES
DE
A. DETTONVILLE
CONTENANT
Quelques-vnes de ſes Inuentions de Geometrie.

SÇAVOIR,

La Reſolution de tous les Problemes touchant LA ROVLETTE qu'il auoit propoſez publiquement au mois de Iuin 1658.

L'Egalité entre les Lignes courbes de toutes ſortes de Roulettes, & des Lignes Eliptiques.

L'Egalité entre les Lignes Spirale, & Parabolique, demonſtrée à la maniere des Anciens.

La Dimenſion d'vn Solide formé par le moyen d'vne Spirale autour d'vn Cone.

La Dimenſion & le Centre de grauité des Triangles Cylindriques.

La Dimenſion & le Centre de grauité de l'Eſcalier.

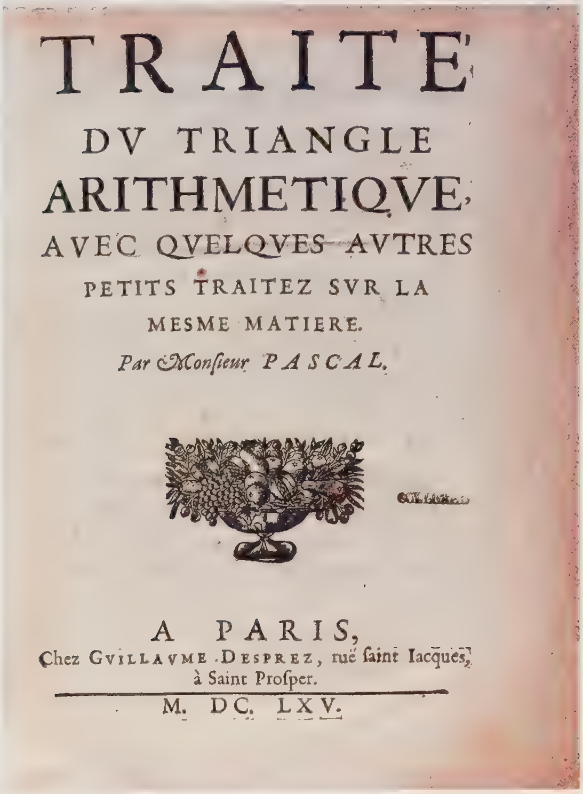
Vn Traitté des Trilignes & de leurs Onglets.

Vn Traitté des Sinus, & des Arcs de Cercle.

Vn Traitté des Solides Circulaires.

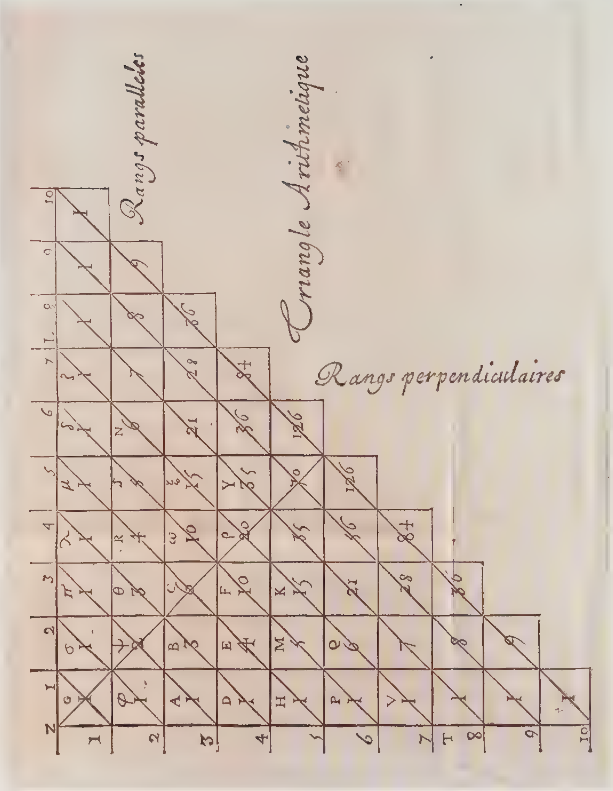
A PARIS,
Chez GVILLAVME DESPREZ, ruë ſaint Iacques,
à l'Image Saint Proſper.

M. DC. LIX.



TRAITE
DV TRIANGLE
ARITHMETIQVE,
AVEC QVELQVES AVTRES
PETITS TRAITEZ SVR LA
MESME MATIERE.
Par Monſieur PASCAL.

A PARIS,
Chez GVILLAVME DESPREZ, ruë ſaint Iacques,
à Saint Proſper.
M. DC. LXV.



5708

PASCAL, Blaise (1623-1662). *Traité du triangle arithmetique, avec quelques autres petits traitez sur la mesme matiere.* Paris: Guillaume Desprez, 1665.

4° (227 x 172 mm). Folding woodcut diagram. (Some very light even browning, one lower margin chipped, possibly washed.) Later vellum; full morocco folding case.

FIRST EDITION OF THE FIRST COMPREHENSIVE STUDY OF THE ARITHMETICAL TRIANGLE, and its applications to combinatorial analysis and the calculus of probability. Pascal's correspondence with Fermat between July and October 1654 marks the beginning of the calculus of probability. The focus of their discussion was two main problems in gaming: the first concerned the probability that a player will obtain a certain face of the die in a given number of throws; the second was to determine for any game involving several players the portion of the stakes to be returned to each player if the game is interrupted. Although Fermat solved these problems, his method consisted of only combinatorial analysis. Pascal, however, discovered the advantages of the systematic application of reasoning by recursion. His recourse to mathematical induction appears in the final section of the *Traité* Although the principle of the arithmetical triangle was already known at the time, Pascal was the first to make a comprehensive study of it, deriving from it the greatest number of applications. It has been pointed out that Pascal's concern went beyond the purely mathematical aspect of the problems of probability, and was to link decisions and uncertain events. Composed partly in French and partly in Latin, the *Traité* has a complex structure; it was printed in 1654 but not distributed until 1665, with the addition of the preliminaries and table. VERY RARE. Tchemerzine V, p. 61; Norman 1651.

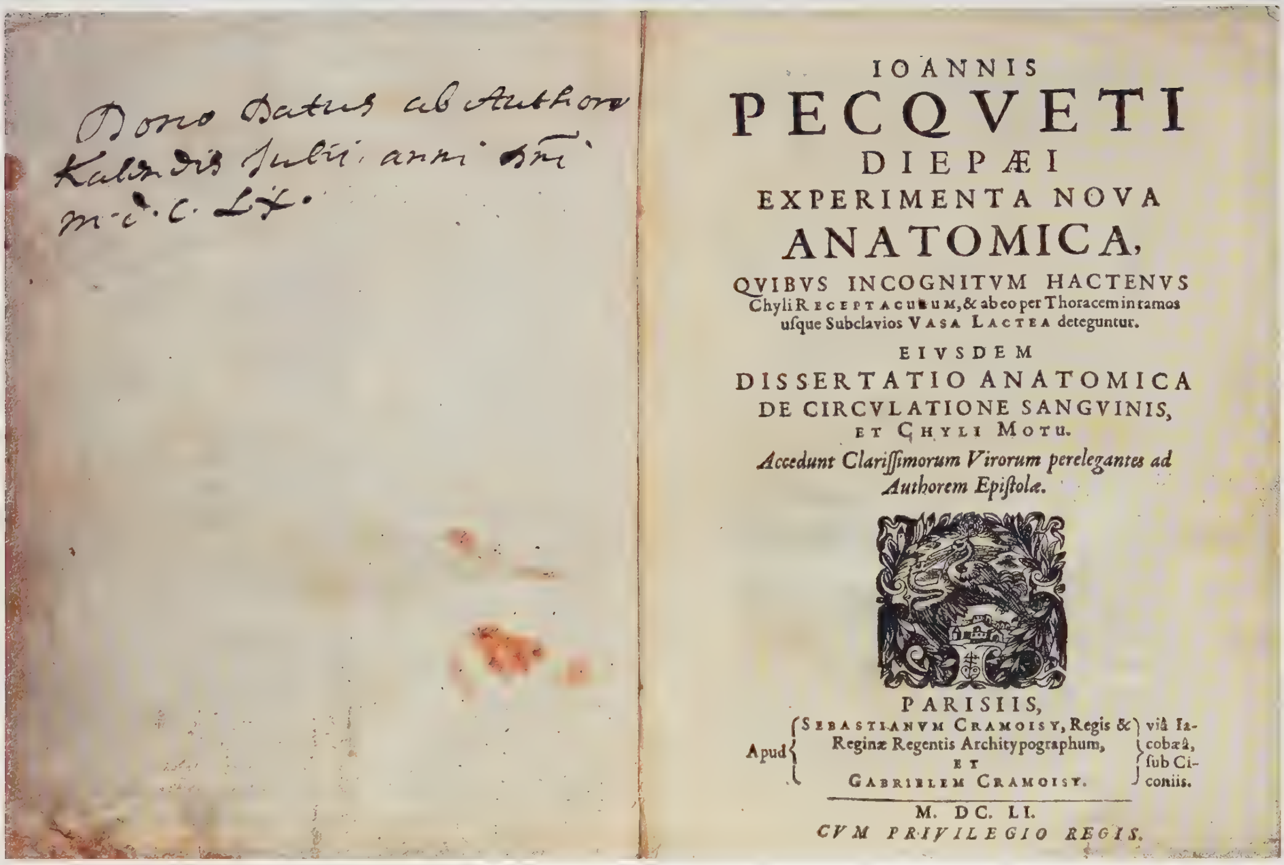
Estimate: $8,000-12,000

•709

[PATHOLOGY, EPIDEMIOLOGY, TOXICOLOGY]. REDI, Francesco (1626-1697/98). *Osservazioni intorno alle vipere.* Florence: All'Insegna della Stella, 1664. 4° (238 x 177 mm). Half-title, titlepage in red and black with engraved vignette emblem of the Accademia della Crusca, woodcut capitals. Modern vellum. FIRST EDITION of Redi's first work on the origin, properties and treatment of snake venom. Garrison & Morton 2102; NLM/Krivatsy 9460; Prandi 2; Wellcome IV, p. 709; Norman 1814 [*Bound with:*] REDI. *Lettera...sopra alcune opposizioni fatte alle sue osservazioni intorno alle vipere.* Florence: Stamperia della Stella, 1670. Half-title. FIRST EDITION of Redi's reply to critics of his Osservazioni, addressed to Abbé Bourdelot, author of *Recherches et observations sur les viperes* (1670) and Alessandro Moro. NLM/Krivatsy 9454; Wellcome IV, p. 488; Norman 1814. — François Emmanuel FODÉRÉ (1764-1835). *Traité du goître et du crétinism, précédé d'un discours sur l'influence de l'air humide sur l'entendement humain.* Paris: Bernard, An VIII [1800]. 8° (201 x 125mm). 4-pp. publisher's advertisement at end. Contemporary quarter black morocco and green paper boards, gilt spine (slightly rubbed). FIRST EDITION. An attempt to link cretinism to goiter, which Fodéré believed to be caused by concentrated humid air in deep valleys. Waller 3099; Norman 811. — Théodore TRONCHIN (1709-1781). *De colica pictonum.* Geneva: Cramer Brothers, 1757. 8° (195 x 125 mm). Half-title. Half vellum and speckled paper boards. FIRST EDITION. A proof that the so-called "Poitou-colic" was the result of the drinking water passing over leaden roofs before it was collected in cisterns, i.e., lead-poisoning. Garrison & Morton 2095; *Heirs of Hippocrates* 899; Norman 2095. — Marie François Xavier BICHAT (1771-1802). *Traité des membranes en general et de diverses membranes en particulier.* Paris: Richard, Caille et Ravier. An VIII [1800]. 8° (205 x 123 mm). Half-title. Contemporary dark brown quarter morocco and purple boards. FIRST EDITION. "The foundation of histology and tissue pathology...Bichat distinguished twenty-one different types of tissue, which he classified...Each tissue differed in its diseases" (Norman). Garrison & Morton 537; Wellcome II, p.164; Norman 230. — [Elisha PERKINS]. Johann Daniel HERHOLDT (1764-1836) & Carl Gottlob RAFN (1769-1808). *Experiments with the metallic tractors in Rheumatic and Gouty affections, inflammations and various tropical diseases.* London: Hansard for J. Johnson, 1799. 8° (206 x 130 mm). Half-title (minor foxing). Contemporary tree calf (rubbed). *Provenance*: Dr. Elisha Perkins, son of the author (gift to:) Nazerath Hall Library (gift label, 1800 inscription on half title). FIRST EDITION. ·An account of the metallic tractors invented by Perkins as a treatment for various disorders and claimed here to have proven effective. Wellcome IV, p. 337; Norman 1684. — William MUSGRAVE (1657-1721). *De arthritide symptomatica dissertatio.* Exeter: Farley for Yeo and Bishop, 1703. 8° (187 x 115 mm). Contemporary panelled sheep, unlettered spine (extremities worn, joints cracked). FIRST EDITION. "Musgrave pointed out that working with lead could be a cause of gout, and that gonorrhea could exacerbate it" (Norman). Norman 1571. —Johann Friedrich BACHSTROM (fl.1734). *Observationes circa scorbutum.* Leiden: Conrad Wishof, 1734. 8° (158 x 97 mm). Contemporary sheep (boards worn, rebacked). FIRST EDITION. "Bachstrom was one of the first to argue that scurvy was a lack of fresh greens and fruit in the diet" (Norman). Wellcome II, p. 81; Norman 96 — Daniel SENNERT (1572-1637). *De scorbuto tractatus.* Wittenberg: Zacharias Schurer, 1624. 8° (166 x 99 mm). One text woodcut. (Severely browned). Later half vellum. FIRST EDITION. A treatise on scurvy which remained authoritative for many years, incorporating the writings of other authorities on the subject. NLM/Krivatsky 10925; Norman 1930. —John TENNENT (ca. 1700-ca. 1760). *Physical Enquiries: discovering the mode of translation in the constitutions of northern inhabitants, on going to... southern climates.* London: T. Gardner for Andrew Millar and John Millan, 1742. 8° (188 x 122 mm). Disbound. FIRST EDITION. Tennant "discussed the constitutional effects of climate change...and criticized the state of eighteenth-century medical practice" (Norman). Norman 2060. — Maximilan STOLL (1742-1787). *Praelectiones in diversos morbos chronicos.* Edited by Joseph Eyerel (1745-1821). Vienna: Christian Friedrich Wappler, 1788-89. 2 vols., 8° (198 x 124 mm). Contemporary quarter sheep and pastepaper boards, gilt spines (rubbed, vol.1 upper joint cracked). FIRST EDITION. Stoll, an eminent epidemiologist, supported Auenbrugger's views on percussion as a diagnostic tool. "Had it not been for his untimely death, the practice might have been accepted sooner" (Norman). Waller 9289; Norman 2025.

(10)

Estimate: $2,500-3,500



Dono datus ab Authore
Kalendis Julii anni Dni
m·d·c·LX·

IOANNIS
PECQVETI
DIEPÆI
EXPERIMENTA NOVA
ANATOMICA,
QVIBVS INCOGNITVM HACTENVS
Chyli RECEPTACVLVM, & ab eo per Thoracem in ramos
uſque Subclavios VASA LACTEA deteguntur.
EIVSDEM
DISSERTATIO ANATOMICA
DE CIRCVLATIONE SANGVINIS,
ET CHYLI MOTU.
*Accedunt Clariſſimorum Virorum perelegantes ad
Authorem Epiſtolæ.*

PARISIIS,
Apud SEBASTIANVM CRAMOISY, Regis & Reginæ Regentis Architypographum, ET GABRIELEM CRAMOISY. viâ Iacobæâ, ſub Ciconiis.
M. DC. LI.
CVM PRIVILEGIO REGIS.

›710

PECQUET, Jean (1622-1674). *Experimenta nova anatomica, quibus incognitum hactenus chyli receptaculum, & ab eo per thoracem in ramos usque subclavios vasa lactea deteguntur.... Dissertatio anatomica de circulatione sanguinis, et chyli motu.* Paris: Sebastian and Gabriel Cramoisy, 1651.

4° (190 x 143 mm). One full-page engraving of the chylus vessels in the dissected carcass of a dog, 5 small text engravings, printer's woodcut device on title, woodcut initials and headpiece ornament. (Filled wormhole to lower margin of first 6 leaves, affecting a letter of imprint, touched up in ink facsimile, and a signature.) Contemporary limp vellum (lacking four leather ties).

Provenance: Presentation inscription from the author to an unidentified recipient, dated July 1660, on front free endpaper.

FIRST EDITION, PRESENTATION COPY. Pecquet is generally credited with the discovery of the thoracic duct, the major vessel of the lymphatic system, although nearly simultaneous discoveries were made independently by both Thomas Bartholin in Denmark and Olof Rudbeck in Sweden (see lot 760). All three scientists worked in a world that had been revolutionized by Harvey's discovery of the circulation of the blood, a discovery still rejected by part of the medical establishment. Pecquet, a native of Dieppe, studied Harvey's theory at the Jardin du Roi, where a small group of Harveyites had been exiled from the conservative Faculté de Médecine. Pecquet pursued Aselli's earlier research into the function of the lacteal vessels in animals. Through observation of the digestive system in dogs, he succeeded in tracing the lacteals to the *cisterna chylii*, or chyle reservoir, which had been sought since Aselli's discoveries, thus refuting the latter's theory that the lacteals ended in the liver, and correctly described the thoracic duct at the union of the jugular and subclavian veins. His work was both made possible by and corroborated Harvey's theories. "Pecquet's discovery that the chyle flowed into the vena cava and thence to the heart, taken together with the Harveaian circulation, was taken to have completely destroyed the food-chyle-blood system centred around a blood-making liver that was fundamental to Galenic physiology" (*The Western medical tradition*, p. 347).

Also included are Pecquet's dissertation on the circulation of the blood, and supporting letters from the Parisian physicians Jacques Mentel and Pierre de Mercenne, and the astronomer and physicist Adrien Auzout.

Garrison-Morton 1095; Grolier *Medicine* 28A (this copy exhibited); *Heirs of Hippocrates* 543; NLM/Krivatsy 8757; Waller 7278; Norman 1676.

Estimate: $3,000-4,000

o711

PERCIVAL, Thomas (1740-1804). *Medical Ethics, or, a code of Institutes and Precepts, adapted to the Professional Conduct of Physicians and Surgeons.* Manchester and London: S. Russell for J. Johnson and R. Bickerstaff, 1803.

8° (224 x 137 mm., uncut). Contemporary boards (light wear to spine and edges); cloth slipcase. *Provenance*: R.H. Leigh (dedicatee, presentation by the author on front free endpaper); Herbert McLean Evans (bookplate).

PRESENTATION COPY of the first trade edition, inscribed by Percival on front free endpaper. "First published for private circulation, 1794. The British and American medical professions have adopted much of 'Percival' in their ethical codes" (Garrison-Morton). "Even today, after undergoing several revisions, the American Medical Association guidelines of ethical conduct for the physician are still based on those formulated by Percival" (*Heirs of Hippocrates*). Garrison-Morton 1764; *Heirs of Hippocrates* 1037; Osler 3645; Waller 7299; Norman 1681.

Estimate: $800-1,200

712

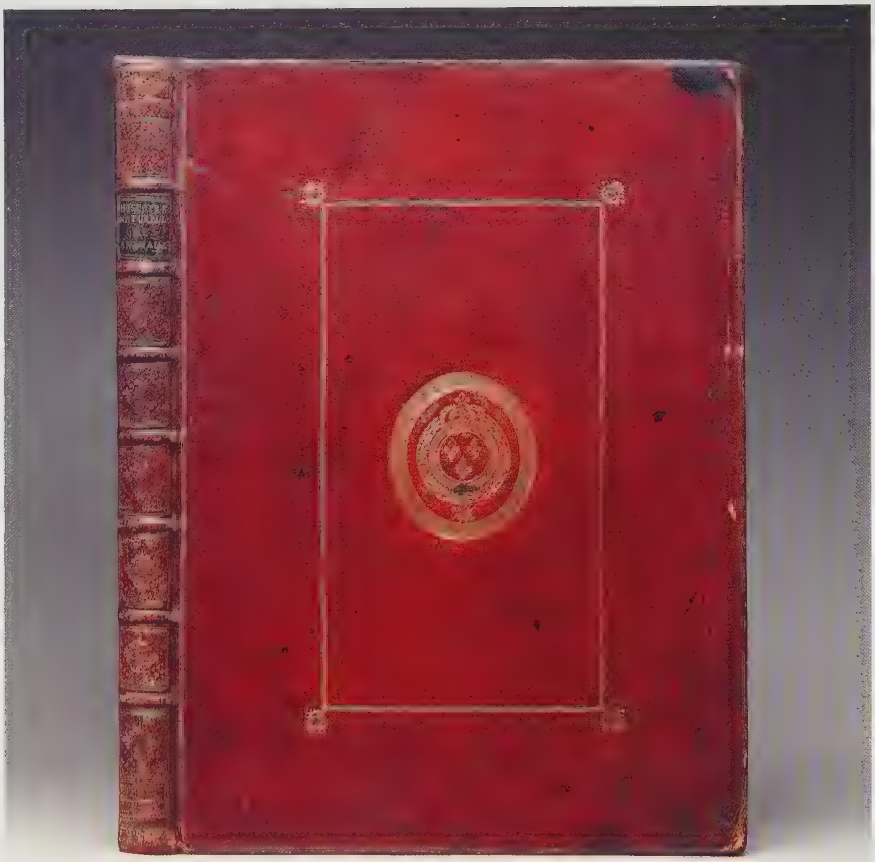
PEMELL, Robert (d. 1653). *De morbis puerorum, or a Treatise of the Diseases of Children, with their Causes, Signs, Prognosticks, and Cures, for the benefit of such as do not understand the Latin Tongue...* London: J. Legatt, for Philemon Stephens, 1653.

4° (183 x 137 mm). Contemporary calf (rebacked); cloth folding case. FIRST EDITION. The second work in English on pediatrics. Published more than 100 years after Phaer's *Boke of children*. Garrison-Morton 6320; NLM/Krivatsy 8774; Wing P-1132; Norman 1680.

[*Bound with*:]

Tractatus de simplicium medicamentorum facultatibus. A Treatise of the Nature and Qualities of such Simples as are most frequently used in Medicines, both Purging, and others... London: M. Simmons, for Philemon Stephens, 1652. 4°. (Minor marginal worming at beginning). FIRST EDITION. "Pemell was one of England's first medical authors to write in his native language" (Norman). NLM/Krivatsy 8777; Wing P-1135; Norman 1678. - *Tractatus, de facultatibus simplicium, The Second Part of the Treatise of the Nature and Qualitie of such Physical Simples as are most frequently used in Medicines...* London: J. Legatt for Philemon Stephens, 1653. FIRST EDITION. Wing P-1134; Norman 1679.

Estimate: $1,200-1,800



5713

[PERRAULT, Claude (1613-1688)]. *Mémoires pour servir à l'histoire naturelle des animaux. — Suite des mémoires pour servir à l'histoire naturelle des animaux.* Paris: Sébastien Mabre-Cramoisy for the Imprimerie Royale, 1671-76.

Two parts in one volume, large 2° (547 x 407 mm). Each part with engraved frontispiece by Goyton after Sébastien LeClerc, engraved title-vignettes incorporating the royal arms of Louis XIV, numerous engraved head- and tail-pieces by LeClerc, 29 engraved plates. (Some minor dust soiling, few minor spots.) Contemporary French red morocco, presentation binding with gilt arms of Louis XIV (Olivier 2494 fer 7) on sides, framed by a triple gilt fillet panel with cornerpieces of his son the Grand Dauphin (a dolphin enclosed within a crowned ornament), triple gilt fillet outer border, spine in eight compartments with seven raised bands, gilt-lettered in one compartment, a repeated gilt panel in the rest, board edges and turn-ins gilt, edges gilt (some wear to extremities, fore-corners bruised, some stains and minor abrasions on sides). *Provenance*: apparently bound for both Louis XIV and his son, the Grand Dauphin, for their joint use or for presentation by them, the king being the patron of the Académie Royale des Sciences (binding).

FIRST EDITION of "one of the most sumptuously produced of all early biological works" (Garrison-Morton). This important text contains descriptions of twenty-nine species, most covered in earlier publications of a team of comparative anatomists headed by Perrault and including Duverney, Pecquet, Moyse Charas and Philippe de la Hire, referred to as the "Parisians" in contemporary scientific literature because of their membership in the Académie Royale des Sciences. "Among the new species described are the lynx, the porcupine, the eagle, the cormorant and the ostrich" (Norman).

This is one of the first publications of the Académie Royale des Sciences. The engraved frontispiece, the first illustration of the meeting of a learned society, shows a meeting of the Academy in the Royal Library at Versailles, with Louis XIV and his minister Colbert present. Eales I. 673 (also with the arms of Louis XIV); Garrison-Morton 295; Nissen ZBI 3123-3124; Norman 1687

Estimate: $6,000-8,000

713

○714

PETTY, Sir William (1623-1687). *Several essays in political arithmetick.* London: Robert Clavel and Henry Mortlock, 1699.

8° (193 x 111 mm). (Occasional spotting; titlepage and contents pages browned). Contemporary panelled calf, gilt spine, red leather label (front cover almost detached; corners and edges worn). *Provenance*: ownership inscription of J.S.Ingell on title; ownership inscription of J. Duncan on front free endpaper; bookplate of The Scottish Farm Servants Union.

FIRST COLLECTED EDITION OF SIX WORKS ON DEMOGRAPHY AND ECONOMICS: *An essay concerning the multiplication of mankind: together with another essay in Political Arithmetick concerning the growth of the City of London*; *Further observations upon the Dublin Bills* (1698); *Two essays in political arithmetick concerning the people, housing, hospitals etc of London and Paris*; *Observations upon the cities of London and Rome*; *Five essays in political arithmetick* (printed both in French and English, on facing pages); *Political arithmetick, or a discourse concerning the extent and value of lands ....* Petty invented the term "political arithmetick" for the application of statistics to economics. His works were important in the development of applied statistics. Garrison-Morton 1688; Wing P-1937; Norman 1688.

Estimate: $2,000-2,500

○715

[PHARMACOPEIA LONDONENSIS]. *Pharmacopeia Collegi Regalis Medicorum Londonensis.* London: T. Longman, T. Shewell, J. Nourse, 1746. 4° (258 x 198 mm). Engraved frontispiece by J. Mynde (fl. 1740-1770). Contemporary rough calf, red leather spine label. *Provenance*: Sir George Montague of Chawton (bookplate). The *Pharmacopeia Londonensis* was first printed in 1618. This was the fifth edition, revised and updated. The work had to be revised again before the end of the century, and was finally replaced by the *British pharmacopeia* in 1864. Norman 1692 — [PHARMACOPEIA LONDONIENSIS]. *The dispensatory of the Royal College of Physicians, London, translated into English with remarks, &c.* Translated by Henry Pemberton (1694-1771). London: T. Longman, T. Shewell, J. Nourse, 1746. 8° (201 x 120 mm). Contemporary sprinkled gilt-ruled calf. FIRST EDITION. Pemberton was engaged in 1739 to translate the *Pharmacopeia*, and spent seven years on the project, correcting as well as translating. The work includes his comments on the preparations, as observed and recorded from his own experiments. Norman 1693.

(2)

Estimate: $800-1,000

5716

Philosophical Transactions: giving some Accompt of the Present Undertakings, Studies, and Labours of the Ingenious in many considerable parts of the World. Vols. 1-54 [1664/5-1764]. London: various printers to the Royal Society, 1667-1765.

Together 54 volumes bound in 49, 4° (206 x 157 mm [Vols. 1-46, in 36], 222 x 174 mm [Vols. 47-54, in 13]). A profusion of engraved plates (many folding). (Occasional browning or spotting.) Vols. 1-46 uniformly bound in 18th-century sprinkled calf gilt in 36 volumes (occasional wear to joints and edges, some chipping to spine ends, a few lettering pieces worn or lacking); Vols. 48-54 uniformly bound in contemporary calf gilt in 13 volumes (occasional wear to joints and edges, bindings somewhat dried and rubbed).

Provenance: John Jay (not the American jurist statesman) (late 17th-century notation regarding binding of set in Vol. 13/14 which reads: "January 29. 84 rec'd in full to December 1684 for Philoso. Trans. Acts. / John Jay Rec'd + Hen. Hunt."); Sir William Cavendish (1808-1891), later the seventh Duke of Devonshire (presentation inscription presumably from his cousin William George Spencer Cavendish, the sixth Duke of Devonshire, on the front free endpaper of Vol. 1: "Devonshire to William Cavendish May 21 1831"); Hans Sloane (1660-1753), secretary of the Royal Society from 1693-1712 and president of the society from 1727-1741 (bookplate in each of the 13 volumes containing Vols. 48-54).

A COMPLETE RUN OF THE FIRST CENTURY OF THE "OLDEST CONTINUOUS SCIENTIFIC JOURNAL AND SINGLE MOST IMPORTANT RECORD OF THE FIRST ANNOUNCEMENT AND COMMUNICATION OF SCIENTIFIC DISCOVERIES AND INVENTIONS" (PMM). It would be impossible to overestimate the historical importance of the *Philosophical Transactions*, which was first published and financed by Henry Oldenburg from March 1664-65 for the new Royal Society, founded in 1662 (see lot 802). The Society took over publication after his death. Scientists and great thinkers from all over Europe communicated or published in the journal, which served as a model for the later published proceedings of other scientific academies.

Nearly every contemporary British scientist and numerous foreign scientists contributed extensively to the *Transactions* in its first hundred years. Contributors include Thorbern Bergman, Edward Berkeley, Boerhaave, Boscovitch, Borelli, Boyle (58 contributions), Celsius, Euler, Fahrenheit, Ferguson, Flamstead, Franklin, Hales, Halley (over 80 contributions), Harvey, Hevelius, Hooke, Huygens, Lancisi, Leeuwenhoek (over 120 contributions), Leibnitz, Locke, Malpighi, Mather, Morgagni, Newton (20 contributions, including his first scientific paper), Petty, Ray, Redi, Smeaton, Steno, Swammerdam, Edward Tyson, John Wallis, William Watson, John Winthrop, Christopher Wren, James Young, and numerous others.

In his *Heralds of Science*, Dibner mentions the following first publications of important discoveries (duplicated with further additions in *Printing and the Mind of Man*):

no.

12 Halley, "Astronomiae cometicae synopsis" (1705)

144 Newton, "A Letter of Mr. Isaac Newton, containing his New Theory about Light and Colours" (1671)

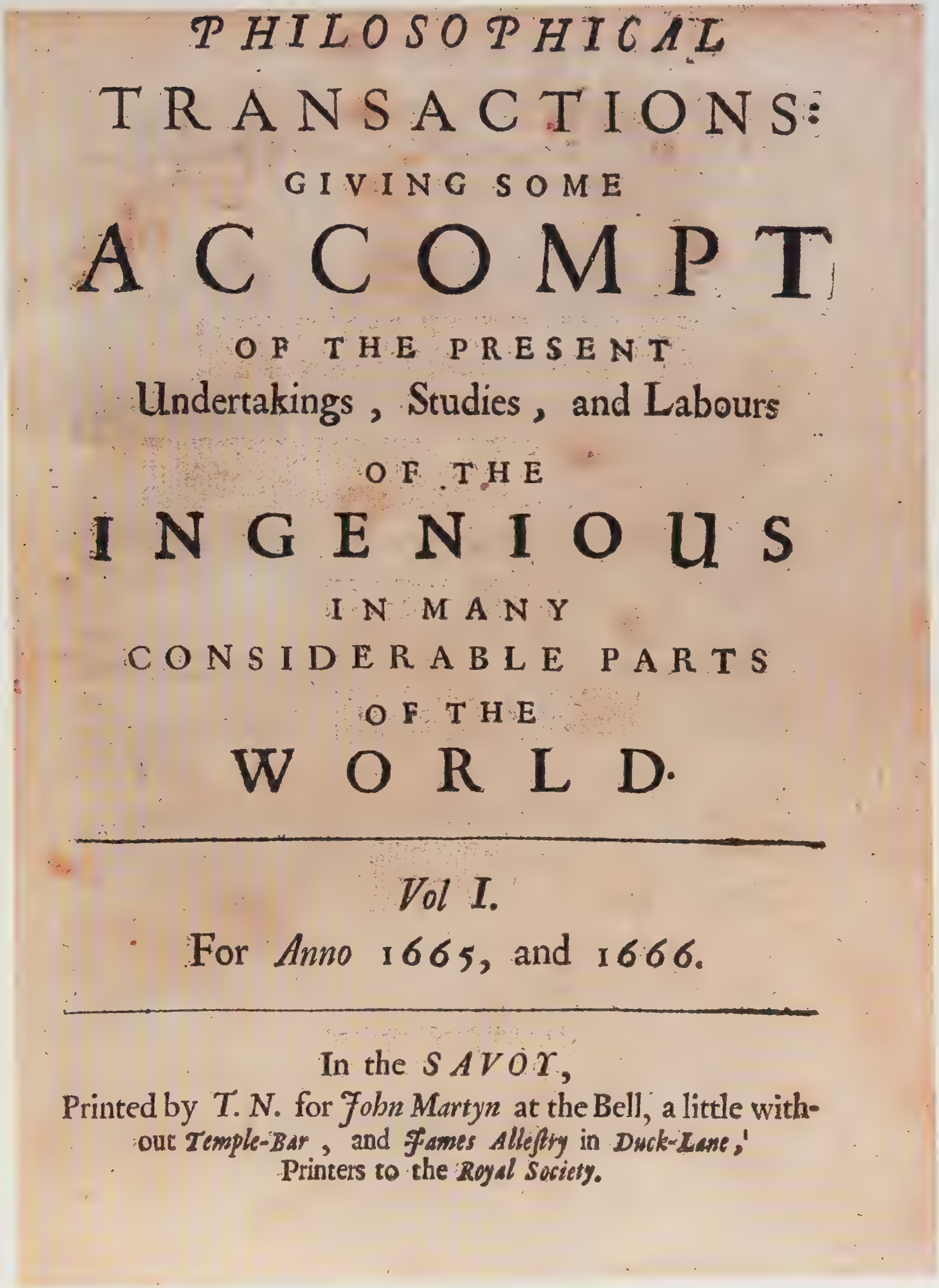
147 Hooke, "Lectiones Cutlerianae: A Collection of Lectures made before the Royal Society at Gresham College" (1674-79)

177 Savery, "An Account of Mr. Thos. Savery's Engine for Raising Water by the Help of Fire" (1699)

189 Leeuwenhoek, "Some observations made by a Microscope" (1673)

The high number of important medical contributions presented in the *Philosophical Transactions* are reflected in the following list of Garrison-Morton citations this run includes: Lower (2012), Hooke (916), Lower & King (2014), Leeuwenhoek (860), Briggs (5822), Browne (3613), Halley (1687), Cowper (1214, 2730), Bonono (4012), Timoni (5409), Pylarini (5410), Blair (3419), Houstoun (6017), Rawlinson (3420), Cheselden (5828), Martine (5048), Machin (4013), Belchier (584), Amyand (3559), Freke (4731), Cleland (3355), Reid (4284), Sharp (5830), Crusio (4014), Baker (4013 note), Wathen (3356), Nicholls (2734.1).

THE SET APPEARS TO BE A COMPLETE RUN AS DESCRIBED AND IN VERY GOOD CONDITION. As usual, however, it is sold as a periodical not subject to return. Grolier/Horblit 95b; PMM 148 (Vol. 1); Norman 1694.



PHILOSOPHICAL
TRANSACTIONS:
GIVING SOME
ACCOMPT
OF THE PRESENT
Undertakings, Studies, and Labours
OF THE
INGENIOUS
IN MANY
CONSIDERABLE PARTS
OF THE
WORLD.

Vol I.
For *Anno* 1665, and 1666.

In the *SAVOY*,
Printed by *T. N.* for *John Martyn* at the Bell, a little without *Temple-Bar*, and *James Alleſtry* in *Duck-Lane*,
Printers to the *Royal Society*.

716

[*With:*] MATY, Paul Henry. *A General Index to the Philosophical Transactions, from the first to the end of the seventieth volume.* London: L. Davis and P. Elmsly, printers to the Royal Society, 1787. 4° (222 x 177 mm). (Some scattered foxing). Contemporary calf gilt (rebacked, joints cracked). FIRST EDITION of a very useful index which covers the entire run above, and indexes to volume number by both subject and author. (50)

Estimate: $8,000-12,000

5717

[PHYSICAL SCIENCES]. — JOHNSTON. John (1603-1675). *Thaumatographia naturalis, in decem classes distincta...* Amsterdam: Willem Blaeu, 1632. 12° (131 x 70 mm). Contemporary vellum, spine ink lettered. FIRST EDITION. Garrison-Morton 287; NLM/Krivatsy 6268; Norman 1177. — Bernhard VARENIUS. (1622-1650). *Geographia generalis.* Edited by Isaac Newton. Cambridge: John Hayes for Henry Dickinson, 1672. 8° (174 x 108 mm). Title printed in red and black, 5 engraved folding plates. Contemporary panelled calf. *Provenance*: John Hewett (1672, owner's signature on front free endpaper). First English edition. Newton provided the revised text for this edition, which is sometimes called Newton's first published book. Babson 251; Norman 2131. — Arthur YOUNG (1741-1820). *A six weeks tour through the southern counties of England and Wales.* London: W. Nicoll, 1768. 8° (205 x 124 mm). Woodcut illustrations in text. Contemporary speckled calf, gilt lettered morocco label on spine. *Provenance*: William Constable (bookplate). FIRST EDITION. Young was the first to apply statistical methods to the study of agriculture. PMM 214; Norman 2272. — Eberhard August Wilhelm von ZIMMERMANN (1743-1815). *Specimen zoologiae geographicae, quadrupedum domicilia et migrationes sistens.* Leiden: Theodor Haak, 1777. 4° (248 x 196 mm). Engraved folding map. Contemporary half calf and marbled boards (rebacked, some wear to corners). FIRST EDITION. The first textbook of zoogeography, containing the first world map showing the distribution of mammals. Garrison-Morton 145.53; Norman 2280. — John WHITEHURST (1713-1788). *An Inquiry into the Original State and Formation of the Earth.* London: J. Cooper for the author and W. Bent, and G. Robinson, 1778. 4° (282 x 222 mm., uncut). 8 engraved plates after drawings by the author, printed on 4 sheets including 2 folding (light marginal dampstaining.) Contemporary boards. *Provenance*: John Erasmus Blackett (Newcastle, 1787 ownership inscription on front free endpaper). FIRST EDITION. Ward & Carozzi 2327; Norman 2236. — Horace Bénédict de SAUSSURE (1740-1799). *Essais sur l'Hygrométrie.* Neuchatel: Samuel Fauche, father and sons, 1783. 4° (268 x 215 mm., uncut). 2 engraved plates (one folding). Contemporary brown wrappers (light wear to spine ends). FIRST EDITION. "Saussure, the Alpine explorer, founded hygrometry, the branch of physics that deals with the measurement of the humidity of air and gases" (Norman). Norman 1894. — Antonio-Lazzaro MORO (1687-1764). *De crostacei e degli altri marini corpi che si truovano su' monti.* Venice: Stefano Monti, 1749. 4° (267 x 193 mm). Engraved title vignette and 8 engraved folding plates. Contemporary boards (rubbing to joints and edges). *Provenance*: C.G. Abrell (Oct. 1825, ownership inscription on front free endpaper). FIRST EDITION. Ward & Carozzi 1611; Norman 1552. - [*Bound with*]: Balthasar EHRHART (d. ca. 1756). *Physicalische Nachricht von einer gegründeten neuen Meinung welche den Ursprung derer aus der Erden kommenden versteinten Sachen... betrifft.* Memmingen: Johann Valentin Mayer, 1745. 4° (226 x 179 mm., uncut). FIRST EDITION. A commentary on Moro's text. Norman 678. — William Hyde WOLLASTON (1766-1828). *On a new Metal, found in crude Platina.* Offprint from: *Philosophical transactions.* London: W. Bulmer, 1804. 4° (248 x 201 mm). Disbound. First separate appearance. Norman 2258. — WOLLASTON. *On the Discovery of Palladium.* Offprint from *Philosophical transactions.* London: W. Bulmer, 1805. 4° (248 x 199 mm). Disbound. First separate appearance. Norman 2259. (9)

Estimate: $2,000-3,000

5718

[PHYSIOLOGY — ANATOMY]. — RUYSCH, Frederick (1638-1731). *Dilucidatio valvularum in vasis lymphaticis, et lacteis.* The Hague: Harman Gael, 1665. 8° (139 x 86 mm). 6 (of 7) engraved plates. Contemporary vellum. *Provenance*: Herbert McLean Evans (bookplate). FIRST EDITION. Garrison-Morton 1099; NLM/Krivatsy 10069; Norman 1874. — Johann Jacob WEPFER (1620-1695). *Cicutae aquaticae historia et noxae.* Basel: Johann Rudolf Genath for Johann Rudolph König, 1679. 4° (194 x 148 mm). Engraved frontispiece (map and view) and 4 woodcut illustrations on two plates (some browning.). Contemporary vellum, spine ink lettered. FIRST EDITION. Garrison-Morton 974.1; NLM/Krivatsy 12949; Norman 2204. — John BELCHER (1706-1785). "An account of the Bones of Animals being changed to a Red Colour by Aliment only." In: *Philosophical transactions.* 39, pp. 287-288. London: W. Innys and R. Manby, 1735. 4° (232 x 185 mm). Contemporary quarter sheep (broken). First appearance. Garrison-Morton 584; Norman 163. — François Louis Joseph SOLAYRES DE RENHAC (1737-1772). *Dissertatio de partu viribus materis absoluto...* Paris: L.C. d'Houry, 1771. 4° (239 x 188 mm). Modern marbled wrappers. FIRST EDITION. Norman 1974. (4)

Estimate: $1,000-1,500

5719

[PHYSIOLOGY, NERVOUS SYSTEM]. — GUTHRIE, James (1785-1856). *Lectures on the operative surgery of the eye.* London: Burgess and Hill, 1823. 8° (230 x 145mm). Contemporary gilt-ruled calf, gilt spine, marbled edges (spine chipped, edges worn). 5 engraved plates (three finely hand-colored) by J. Stewart after William Mulready (lacking a1 [half-title?]). FIRST EDITION, PRESENTATION COPY, inscribed at top of title-page in ink: "To T. Frankland Lewis Esq. M.P. / with the Author's best respects." Guthrie "was the first in Britain to give a systematic course of lectures on the anatomy and diseases of the eye" (Norman). Garrison & Morton 5845; Norman 958. — Charles de SAINT-YVES. *Nouveau traité des maladies des yeux, les remedes...& les operations de chirurgie que leurs guérisons éxigent.* Paris: Pierre-Augustin le Mercier, 1722. 12° (168 x 97mm). Contemporary speckled calf gilt, edges speckled red (rebacked, preserving original spine). FIRST EDITION. Signed by the author (to protect against piracy) at end of dedicatory epistle. "Includes accounts of a number of innovations, including his cataract operation, the extensive use of silver nitrate in treating eye diseases...and the first exact description of gonorrheal opthalmia" (Norman). Garrison & Morton 5827; Norman 1880. — MAHON. *Le dentiste observateur.* Paris: Millet, An VI [1797/98]. 2 parts in 1, 8° (187 x 113mm). Half-title, woodcut illustrations. Original blue paper wrappers, uncut, revolutionary broadside used for pastedowns (slightly worn). FIRST EDITION. Signed by the author on E9v as a protection against piracy. Mahon "noted the effects of hereditary, congenital and environmental factors on children's teeth" (Norman). Norman 1421. — Joseph DUCHESNE [Josephus Quercetanus]. *Tetrade des plus grieves maladies de tout le cerveau.* Paris: Claude Morel 1625. 8° (164 x 105mm). (Light dampstains, first several quires partially loose in binding). Contemporary vellum (stains, sewing sprung). First Edition in French of this prolific author's treatise on the four diseases of the brain: epilepsy, apoplexy, vertigo and paralysis; Duchesne identified the cause of epilepsy as the noxious fumes of vitriolic vapor of mercury. Norman 662. NLM/Krivatsky 3475. — Franz Joseph GALL (1758-1828) and Johann Caspar SPURZHEIM (1776-1832). *Recherches sur le système nerveux en général, et sur celui du cerveau en particulier.* Paris: F. Schoell; H. Nicolle, 1809. 4° (308 x 231mm). Half-title, engraved plate by Bouquet after J.G. Prêtre (minor spotting). Original publisher's plain paper wrappers (pastedowns comprise sheets from an 1821 edition of Byron in French and a Latin grammar), UNCUT AND LARGELY UNOPENED, paper spine label (part of spine renewed). FIRST EDITION. An anatomical memoir submitted to l'Institut de France, and published with the report of the Institut's commission (headed by Philippe Pinel); later reissued as the first volume of Gall and Spurzheim, *Anatomie et physiologie du système nerveux* (Paris, 1810-1819). Wellcome III, p.84; Norman 861. (5)

Estimate: $1,800-2,500

5720

[PINEL, Philippe (1745-1826)]. "Pathologie interne, extrait des lecons du citoyen Pinel...a l'ecole de medicine de Paris," Manuscript on paper in an unidentified hand, apparently that of an unnamed student of Pinel. Paris, [1800-1801].

2 vols., 4° (220 x 170mm). 733 leaves (vol.1: 418 leaves; vol.2: 315 leaves). Occasional corrections and deletions in the text, extensive shoulder notes in left-hand margins indicating subject matter. Contemporary quarter calf and pastepaper boards, spine gilt and with gilt-lettered labels: "Pathologie Interne," the pages uncut (rubbed, spine ends chipped, spine of vol.1 nearly detached). *Provenance*: "Dr. Legrain / 9 Rue Palouze / Paris" (ink inscription on flyleaves).

NOTES TAKEN AT PINEL'S LECTURES. A highly interesting record, meticulously taken down in longhand, of Pinel's two-year course on internal pathology at the École de Médicine in Paris, where Pinel taught from 1795. The notes incorporate many clinical examples drawn from medical literature, and some from Pinel's own experience, labelled by the writer "histoire de Pinel." The organization of the lectures parallels Pinel's *Nosographie philosophique* (Paris 1798), an enormously popular textbook which classified all human diseases into five classes: fevers, phlegmasias, hemorrhages, neuroses and diseases from organic lesions; these categories were further subdivided into 21 orders and 81 species, in the manner of Linnaeus. Although Pinel's system was not generally adopted, it influenced Bichat's creation of histological pathology. Norman 1700.

Estimate: $1,500-2,000

721

PINEL, Philippe (1745-1826). *Traité medico-philosopique sur l'aliénation mentale, ou la manie.* Paris: Richard, Caille et Ravier, an IX [1801].

8° (213 x 135mm). Half-title, printed folding table, two engraved plates (small wormtrack to extreme gutter margins of first half of book, dampstains to plates. Original dark purple paper wrappers, UNCUT, printed paper spine label (label possibly re-attached, small tears to hinges); modern cloth clamshell box.

FIRST EDITION of a landmark work on the treatment of the insane and mentally ill. In 1793 Pinel, newly appointed physician at the Bicêtre Hospital, ordered the chains and shackles removed from 49 patients (an event commemmorated at the time in paintings and popular prints) in order to try his new, more humane methods of treatment. "Pinel's psychiatric work effectively transformed the prison for the insane into a hospital. He did not merely initiate better treatment...but rather concerned himself with establishing psychiatry as a discrete branch of medicine." In addition, "Pinel's psychiatric therapeutics, his 'traitement moral,' represented the fisrt attempt at individual psychotherapy. His treatment was marked by gentleness, understanding and goodwill" (DSB). *En fran\gcais dans le texte* 203; Garrison-Morton 4922; Grolier *Medicine* 54 (this copy exhibited); *Heirs of Hippocrates* 1070; Hunter & Macalpine, pp. 602-610; Waller 7456; Wellcome IV, p. 388; Norman 1701.

Estimate: $2,000-3,000

722

PINEL, Philippe (1745-1826). *Traité medico-philosophique sur l'aliénation mentale, ou La manie...Seconde édition.* Paris: J. Ant. Brosson, 1809.

8° (194 x 123mm). Half-title, printed folding table, two engraved plates (pp.71-72 torn at bottom with loss of several words). Nineteenth-century quarter calf and marbled paper boards, edges speckled (light rubbing). *Provenance*: Jean Louis Marc Alibert (1768-1837), dermatologist, author of the first French illustrated work on dermatology, *Description des maladies de la peau* (Paris, 1806) (presentation inscription from author on half-title).

PRESENTATION COPY of the second, enlarged edition. scribed by Pinel at top of title in ink: "A Monsieur Alibert / de la part de l'auteur" (inscription slightly shaved by binder). *Heirs of Hippocrates* 1071 ("entirely recast and greatly enlarged"); Hunter & Macalpine, pp.602-610; Wellcome IV, p. 388; Norman 1702.

Estimate: $1,200-1,800

723

PINEL, Philippe (1745-1826). Autograph letter signed ("Pinel") to "M. Lebeau, docteuer," Paris, 12 May 1819. 3¾ pages, 4to (250 x 197 mm), offering a detailed clinical opinion in the case of a Madame L. whose symptoms are described, concluding that they do not portend imminent danger, recommending certain infusions and a gentle and nourishing diet (foods listed in detail) to cure her digestive troubles, as well as calming drives in the county: "il sera donc important de faire quelque petit voyages en voiture le matin et le soir..." Norman 1708. — PINEL. Autograph letter signed ("Pinel") to an unidentified physician, Paris, 5 May 1813. 4 pages, 4to (247 x 203mm.), detailed diagnosis and recommendation of treatments for a patient whose ailment he classifies as "periodic melancholia," due to sudden bereavement, suggesting camphor and opium during the attacks and suggesting that if these prove unsuccessful, she may need to come to Paris for treatment "dans un établissement consacré au traitement de l'aliénation mentale," for which he recommends one of his former students, Dr. J.E.D. Esquirol (1772-1840). *Provenance*: Dr. Max Thorek (label on folder). Norman 1707. — PINEL. Autograph letter signed ("Pinel") to a Madame Ramond, Paris, 2 April 1806. 1½ pages, 4° (212 x 169mm). Advising her that the swelling of the uterus probably does not constitute "un état d'alienation," and suggesting warm baths, country walks, and the consumption of fruit. Norman 1706.

(3)

Estimate: $1,800-2,500

5724

PINEL, Philippe (1745-1826). *Traité médico-philosophique sur l'aliénation mentale, ou la manie ... Seconde édition.* Paris: J. Ant. Brosson, 1809. 8° (212 x 138mm). Half-title, printed folding table, two engraved plates. Original pale lavender printed wrappers (bearing publisher's advertisements for other medical works), printed paper spine label, UNCUT AND LARGELY UNOPENED (small crack in paper spine); black cloth clamshell box. Second, enlarged edition. A copy in fine original state. *Heirs of Hippocrates*, 1071; Norman 1703. — PINEL. *A treatise on insanity, in which are contained the principles of a new and more practical nosology of maniacal disorders than has yet been offered to the public.*. Sheffield: W. Todd for Cadell & Davies, London, 1806. 8° (208 x 132mm). Half-title, folding printed table, two engraved plates (very minor foxing). Nineteenth-century textured cloth and marbled boards, speckled edges, spine titled in gilt (boards rubbed). FIRST EDITION in English, translated by David Daniel Davis (1777-1841), physician to the Sheffield General Infirmary. Wellcome IV, p. 388; Norman 1704. — PINEL. *Mémoire sur la manie périodique ou intermittente.* [Paris: Crapelet for Maradan], n.d. [1802]. 8° (210 x 132mm). Half-title (light dust-soiling, some gutter margins reinforced). Modern wrappers, uncut. First separate edition, originally published in the *Mémoires* of the Société Médicale d'Emulation in Paris. Norman 1705. — PINEL. *Recherches et observations sur le traitement moral des aliénés.* N.p., n.d. [Paris: 1798]. 8° (190 x 120mm). Half-title, 42pp. Modern quarter brown morocco, gilt-lettered spine. With a preliminary blank leaf bearing a manuscript note describing it as having been published in the *Mémoires* of the Société Médicale d'Emulation de Paris. Norman 1699.

(4)

Estimate: $1,200-1,800

5725

PLATTER, Felix (1536-1614). *Praxeos seu de cognoscendis, praedicendis, praecavendis, curandisque affectibus homini incommodantibus tractatus.* Basel: Conrad Waldkirch, 1608 (Vol. 1), 1603 (Vol. 2).

2 volumes. 8° (176 x 107 mm [Vol. 1]; 174 x 110 mm [Vol. 2]). Contemporary blind-tooled calf (spine worn) [Vol. 1]; vellum manuscript leaf over boards, hand-inked spine [Vol. 2]. *Provenance*: Daniel Arbor (inscription); Henry S. Patterson (bookplate).

FIRST EDITION OF VOLUME 2; second edition of Volume 1. "AN OUTSTANDING WORK ON PATHOLOGY" (DSB). Platter, a celebrated Swiss anatomist, pediatrician, and chief physician of Basle, proposed a novel classification of diseases according to their symptoms, including, for the first time, mental diseases. The work includes one of the earliest accurate clinical descriptions of cretinism. Garrison-Morton 2195; NLM/Krivatsy 9076 [Vol. 2]; Wellcome 5086 [1st edition]-5087; Norman 1715.

(2)

Estimate: $1,000-1,500

5726

PLATTER, Felix (1536-1614). *Observationum, in hominis affectibus plerisque, corpori et animo, functionum laesione, dolore, aliave molestia & vitio incommodantibus, libri tres.* Basel: Ludwig König for Conrad Waldkirch, 1614.

8° (170 x 99 mm). (Paper flaw to):(2 and):(3, affecting some lines of text). Contemporary limp vellum (soiled, a little wear to lower cover). *Provenance*: Francis Petit, M.D. (1694 inscription on front endpaper); scattered marginalia.

FIRST EDITION, containing Platter's observations of a wide variety of diseases, including many gynecological diseases, and mental illnesses, with detailed notes on their causes, which he sought in the physiological rather than the supernatural. He also investigated the contagion of diseases. The work includes the ealriest known report of a case of infant death from hypertrophy of the thymus. Garrison-Morton 3789, 4511.1; NLM/Krivatsy 9073; Osler 3693; Wellcome I, 5089; Norman 1716.

Estimate: $2,000-3,000

ɔ727

PLAYFAIR, John (1748-1819). *Illustrations of the Huttonian theory of the earth*. Edinburgh: for Cadell and Davies (London), and William Creech (Edinburgh), 1802.

8° (228 x 142 mm). (Some light occasional browning and foxing). Original blue boards, white paper spine, early manuscript lettering-piece on spine, UNCUT (spine worn, reinforced with 2 strips of cloth; some discoloration); folding cloth case. *Provenance*: WILLIAM HERSCHEL (1738-1822), astronomer (signature on title, later Herschel Library inkstamp on title and A1r; presumably the intended recipient of the presentation inscription "From the author" on verso of front free endpaper); Robert Honeyman IV (Sotheby's London, 10 November 1980, lot 2498).

FIRST EDITION. UNUSUAL PRESENTATION COPY OF ONE OF THE MOST CONSPICUOUS LANDMARKS IN THE PROGESS OF BRITISH GEOLOGY. Playfair, a professor of mathematics at the University of Edinburgh and a friend of James Hutton, revised Hutton's *Theory of the earth* to present his case more precisely, with additional evidence and without Hutton's religious ideas. Although Playfair's primary works were in mathematics and physics, he added substantially to the sum of geological knowledge of his time. Grolier/Horblit 52b; Norman 1717.

Estimate: $2,000-3,000

ɔ728

PORTAL, Paul (1630-1703). *La pratique des accouchemens soutenue d'un grand nombre d'observations*. Paris: Gabriel Martin for the author, 1685.

8° (187 x 122 mm). Engraved portrait frontispiece and 8 engraved plates. Contemporary mottled calf (rebacked, old spine laid down).

FIRST EDITION. "Portal's most important contribution to obstetrics was his recognition of the anatomy and clinical importance of placenta previa" (Norman). Garrison-Morton 6148; NLM/Krivatsy 9200; Waller 7575; Wellcome IV, p. 420; Norman 1727.

Estimate: $1,000-1,500

ɔ729

POTT, Percivall (1714-1788). *A treatise on ruptures*. London: C. Hitch and L. Hawes, 1756.

8° (198 x 121 mm). (Some light browning throughout, and occasional foxing). Contemporary gilt-ruled calf (rebacked, corners worn). *Provenance*: William Shippen (1736-1808), who delivered the first series of obstetrical lectures in America, and was one of the founders of the College of Physicians of Philadelphia, Physician-in-Chief to the Continental Army, and Director-General of Military Hospitals during the Revolutionary War (ownership inscription).

FIRST EDITION. Pott rejected many old theories of hernias, and treatments based on these theories. He classified hernias by their condition, gave the first description of congenital hernia, and recommended immediate operation on cases of strangulated hernia. Garrison-Morton 3576; Wellcome IV, p. 423; Norman 1728.

Estimate: $2,000-3,000

5730

POTT, Percivall (1714-1788). *Observations on the nature and consequences of those injuries to which the head is liable from external violence.* London, 1768. 8° (209 x 131 mm). 2 engraved plates (occasional spotting to text). Panelled calf antique. *Provenance*: Benjamin Colles, 1768 (inscription); George Parker M.D., 1912 (bookplate); James MacKenzie Davidson (bookplate). Second edition. Norman 1736. — [*Bound with*:] POTT. *Some few general remarks on fractures and dislocations.* London: L. Hawes, W. Clarke, R. Collins, 1768. 8° (209 x 131 mm). 2 engraved plates (slight staining to edges of some leaves, not affecting text). FIRST EDITION. Norman 1734. — [*With*:] POTT. *Observations on the nature and conseequences of those injuries to which the head is liable from extreme violence.* London: L. Hawes, W. Clarke, R. Collins, 1768. 8° (202 x 123 mm). 2 engraved plates (light browning throughout). *Provenance*: J.H Wilson (inscription); H. Barker (inscription); University of Pennsylvania Library (stamp, titlepage and Q^1; perforated stamp on titlepage, over imprint). Second edition. Norman 1735. — [*With*:] POTT. *Remarks on that kind of palsy of the lower limbs.* London: J. Johnson, 1779. 8° (202 x 122 mm). (Occasional foxing to titlepage and some pages of text). Half sheep (rebacked), contemporary marbled boards, new gilt-lettered spine label. *Provenance*: Society of Apothecaries, 1831 (bookplate); J. Barker, M.D. (inscription). FIRST EDITION. Norman 1738. — [*Bound with*:] POTT. *Further remarks on the useless state of the lower limbs.* London: J. Johnson, 1782. 8° (202 x 122 mm). 5 engraved plates by R. Laurie (offsetting to I4 from plates; all plates foxed and browned). *Provenance*: extensive manuscript medical notes on verso of half-title and on 7 leaves and endpaper at end of text, dated variously from 1789-1815. FIRST EDITION. Norman 1738a.

(3)

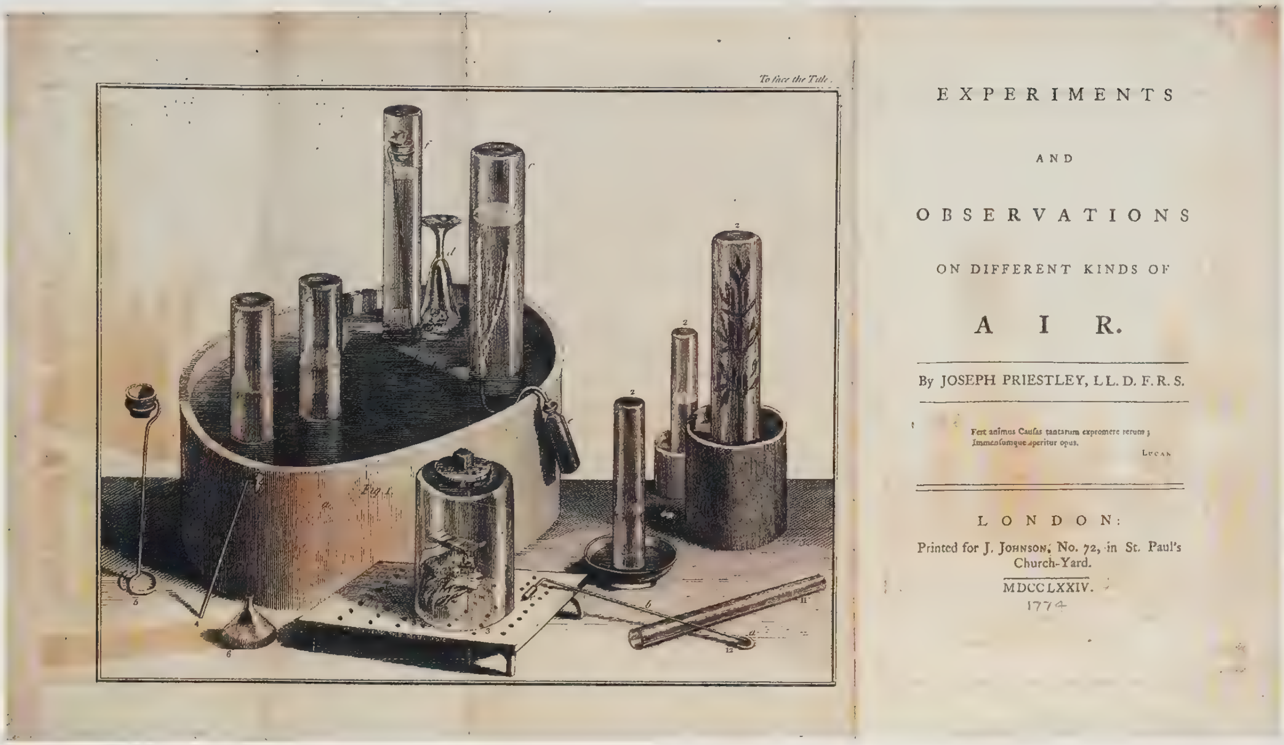
Estimate: $1,500-2,000

5731

POTT, Percivall (1714-1788). *A Treatise on ruptures.* London: C. Hitch and L. Hawes, 1756. 8° (199 x 121 mm). (Very occasional light spotting to text). Contemporary gilt-ruled calf, red leather spine label (rebacked). *Provenance*: E. Pacifico (bookplate). FIRST EDITION. Norman 1729. — [*Bound with*:] POTT. *An account of a particular kind of rupture frequently attendant upon new-born children.* London: C. Hitch and L. Hawes, 1757. 8° (199 x 121 mm). (Light browning to text). FIRST EDITION. Norman 1730. — [*Bound with*:] POTT. *Observations on that disorder of the corner of the eye, commonly called Fistula Lachrymalis.* London: C. Hitch and L. Hawes, 1758. 8° (199 x 121 mm). (Some browning to text). FIRST EDITION. Norman 1731. — POTT, Percival. *Practical remarks on the hydorele or watery rupture and some other diseases of the testicle, it's coats and vessels.* London: C. Hitch and L. Hawes, 1762. 8° (198 x 124 mm). (Some light browning and staining throughout). Contemporary gilt-ruled calf (rebacked). FIRST EDITION. Norman 1732. — POTT. *Remarks on the disease commonly called a fistula in ano.* London: L. Hawes, W. Clarke, and R. Collins, 1765. 8° (218 x 135 mm). Engraved plate, facing p. 40 (A3 torn and repaired, just affecting text; very occasional light spotting). 19th-century boards, printed spine label (some wear and losses). *Provenance*: Geo. Trusted (inscription and bookplate). FIRST EDITION. Norman 1733. — POTT. *Chirurgical observations relative to the cataract, the polypus of the nose, the cancer of the scrotum, the different kinds of ruptures, and the mortification of the toes and the feet.* London: T.J. Carnegy for L. Hawes & others, 1775. 8° (205 x 120 mm). (Occasional light browning). Modern pigskin, leather spine labels. *Provenance*: offsetting on front free endpaper from engraved armorial bookplate (no longer present); John D. Stowe, 1836 (inscription); New York Academy of Medicine (stamps on half-title, title and 3 text leaves). FIRST EDITION. Norman 1737.

(4)

Estimate: $4,000-5,000



EXPERIMENTS

AND

OBSERVATIONS

ON DIFFERENT KINDS OF

AIR.

By JOSEPH PRIESTLEY, LL. D. F. R. S.

Fert animus Cauſas tantarum expromere rerum ;
Immenſumque aperitur opus.
LUCAN

LONDON:
Printed for J. JOHNSON, No. 72, in St. Paul's
Church-Yard.
MDCCLXXIV.
1774

733

ɔ732

PRIESTLEY, Joseph (1733-1804). *The History and present state of Electricity, with original experiments.* London: for J. Dodsley, J. Johnson & B. Davenport and T. Cadell, 1767.

4° (254 x 205 mm). 7 engraved folding plates. Contemporary calf (joints split).

FIRST EDITION. The first extensive history of electrical discovery and theory and the author's first scientific work. "Priestley's work gave a methodized account of previous discoveries and reviewed contemporary electrical studies; his account favored Franklin's one-fluid theory, but was otherwise fairly impartial" (Norman). Crook *Priestley* S/480; Norman 1748.

Estimate: $1,000-1,500

ɔ733

PRIESTLEY, Joseph (1733-1804). *Experiments and Observations on different kinds of Air.* London: J. Johnson, 1774.

3 volumes, 8° (225 x 138 mm., vol. I, uncut and 212 x 129 mm). 6 engraved plates including 3 folding (E5 and E6 of vol. I with tiny circular hole, affecting a few letters, endpapers of vol. I renewed.) Vol. I in 19th-century tree calf, vols. II and III in contemporary red boards (spine faded light rubbing to spine ends and joints).

FIRST EDITION. Priestley's hundreds of experiments on different types of "air" led to the discovery of oxygen and some of its properties. Duveen p.484; Grolier/Horblit 85; Norman 1750.

(3)

Estimate: $2,000-3,000

ↄ734

PRIESTLEY, Joseph (1733-1804). "Observations on different kinds of air." In: *Philosophical transactions.* Volume 62, pp. 147-264. London: Lockyer Davis, 1772. 4° (230 x 180 mm). Contemporary quarter calf and marbled boards (lower cover detached). FIRST APPERANCE of Priestley's remarkable investigations in pneumatic chemistry on pp. 147-264. Dibner *Heralds of Science* 40; Garrison-Morton 920; PMM 217; Norman 1749 — *Experiments and Observations on different kinds of Air...* Birmingham: Thomas Pearson, 1790. 3 volumes, 8° (210 x 128 mm). Contemporary calf, each volume with two black leather spine labels. *Provenance*: Lathum Blacker (armorial bookplate on front pastedown). FIRST COLLECTED EDITION. Norman 1752 — *Hartley's Theory of the Human Mind, on the principle of the Association of Ideas.* London: J. Johnson, 1775. 8° (205 x 129 mm). Contemporary speckled calf gilt. FIRST EDITION. Norman 1751. (5)

Estimate: $1,000-1,500

ↄ735

PRIMROSE, JAMES (1592-1659). *Exercitationes, et animadversiones in librum, De motu cordis, et circulatione sanguinis. Adversus Gvillielmum Harveum.* London: William Jones for Nicholas Bourne, 1630.

4° (182 x 140 mm.). Architectural woodcut titlepage border, woodcut capitals and headpieces, errata at bottom of P2v. Later vellum.

FIRST EDITION of the first published attack on Harvey's theory of circulation as embodied in the *De motu cordis* (1628). Willis, author of *History of the discovery of the circulation of the blood* (London 1878), characterized Primrose's book as 'obstinate denials...perversions of statements involving matters of fact, and in its whole course appeals not once to experiment as a means of investigation'" (Keynes, *Life of Harvey*, p.320). Very rare: aside from the Honeyman copy (sale, Sotheby's, 10 November 1980, lot 2539, cropped and repaired) the only other copy recorded in auction records is the Moncreiff copy, sold in 1931. NLM/Krivatsky 9293; Osler 724; STC 20385; Waller 7641; Wellcome I, 5250; Norman 1753.

Estimate: $3,000-4,000

ↄ736

PRINGLE, John (1707-1782). *Observations on the Diseases of the Army, in Camp and Garrison.* London: A. Millar, D. Wilson and T. Payne, 1752. 8° (202 x 124 mm). (Fly-leaf with tape repair.) Contemporary calf (upper joint split). *Provenance*: Grisell Baillie (ink notation on title, bookplate). FIRST EDITION, Presentation copy, with the recipient's note on title: "A present from the Author / Grisell Baillie." "In this book Pringle outlined the basic principles of military sanitation and stressed the proper ventilation of military quarters regardless of their location" (*Heirs of Hippocrates*). Garrison-Morton 2150; Grolier *Medicine* 73B; *Heirs of Hippocrates* 879; Norman 1755. — [*Bound with*:] PRINGLE. *Observations on the Nature and Cure of Hospital and Jayl-Fevers.* London: A. Millar and D. Wilson, 1750. FIRST EDITION. "Pringle was a strong advocate of better ventilation in prisons and hospitals as a means of preventing typhus, which he showed to be identical with 'hospital fever'" (Garrison-Morton). Garrison-Morton 5374; Norman 1754. — PRINGLE. *Observations of the Diseases of the Army...* Another copy. 8° (207 x 129 mm). Contemporary calf (rebacked). *Provenance*: E.G. Graham Little. Norman 1756. — *Six Discourses delivered by... when President of the Royal Society... to which is prefaced the Life of the Author.* Edited by Andrew Kippis. London: W. Strahan and T. Cadell, 1783. 8° (208 x 130 mm). Contemporary tree calf (rebacked). Norman 1758. (3)

Estimate: $1,000-1,500

›737

[PUBLIC HEALTH]. — MARTINE, George (1702-1741). *Essays Medical and Philosophical.* London: A. Millar, 1740. 8° (196 x 125 mm). (Minor marginal worming at end.) Contemporary calf. FIRST EDITION. "Martime revived Santorio's clinical thermometry in the present work, the first and only scientific treatise on the subject before the 19th century. Martine's ideas were carried out by James Currie" (Norman) [see below]. Garrison-Morton 2671; Norman 1447. — Clément Joseph TISSOT (1728-1797). *Gymnastique médicinale et chirurgicale, ou essai sur l'utilité du mouvement, ou des différens exercices du corps, & du repos dans la cure des maladies.* Paris: Bastien, 1780. 12° (161 x 97 mm). 19th-century half calf and marbled boards (rebacked). *Provenance*: Westdean Library (bookplate). FIRST EDITION. Garrison-Morton 1987.4; Norman 2080. — TISSOT. *Avis au peuple sur sa santé.* Lausanne: J. Zimmerli for François Grasset, 1761. 12° (162 x 95 mm). Contemporary plain boards (splitting to joints). *Provenance*: Chanoine Leleu (bookplate): FIRST EDITION. Garrison-Morton 1597; Norman 2081. — TISSOT. *Advice to the People in General with Regard to their Health...*, Translated by James Kirkpatrick. London: T. Becket and P.A. de Hondt, 1765. 8° (202 x 129 mm). (Some browning.) Contemporary calf (broken). *Provenance*: Helse Library (ink notation on title). First Edition in English. Norman 2082. — TISSOT. *Essai sur les maladies des gens du monde.* Lausanne: François Grasset, 1770. 8° (179 x 118 mm., uncut). Later wrappers. FIRST EDITION, signed by publisher on O3 to prevent piracy. Norman 2083. — James CURRIE (1756-1805). *Medical Reports, on the Effects of Water, cold and warm, as a remedy in Fever, and Febrile Diseases... and on the effects of Opium, Alcohol, and Inanition.* Liverpool: J. M'Creery for Cadell and Davies, 1797. 8° (230 x 140 mm., uncut). Contemporary blue boards with white paper spine (light wear to foot of spine). *Provenance*: Baulby (dedicatee, inscription on front free endpaper); Edgar Goldschmid (bookplate). FIRST EDITION. Presentation copy inscribed: "To Mr. Baulby / with kind respects / From the Author." Garrison-Morton 1988; Wellcome II, p.240; Norman 547. — William FALCONER (1744-1824). *Remarks on the Influence of Climate, Situation, Nature of Country, Population, Nature of Food and Way of Life on the Disposition and Temper, Manners and Behaviour, Intellects, Laws and Customs, Form of Government, and Religion of Mankind.* London: C. Dilly, 1781. 4° (281 x 225 mm., uncut). Contemporary boards (some wear to spine and corners). *Provenance*: E. Lewis (1785, signature on title). FIRST EDITION. Wellcome III, p.7; Norman 755. — [MEDICAL REPOSITORY]. *Address, &c.* [caption title]. New York, 1796. 8° (180x 115 mm). Modern wrappers. FIRST EDITION. Norman 1483. — Lyman SPALDING (1775-1821). *Bill of Mortality, for Portsmouth, Newhampshire 1801-1811.* Portsmouth: s.n., 1802-1812. 11 single sheets (262 x 194 mm., and smaller). Disbound. Modern quarter cloth folder. FIRST EDITIONS. "Spalding, the founder of the United States pharmacopeia, tabulated the deaths in Portsmouth between 1801-1811" (Norman). Norman 1978.

(9)

Estimate: $2,000-3,000

›738

RAMAZZINI, Bernardino (1633-1714). *De morbis artificum diatriba.* Modena: Antonio Capponi, 1700.

8° (172 x 110 mm). (Several leaves browned and spotted, some minor foxing.) Contemporary Italian vellum over pasteboard. *Provenance*: Maria Victoria da Luschis of Modena (contemporary inscription on rear free endpaper).

FIRST EDITION of the first treatise to deal systematically with the subject of occupational diseases. Although occasional references had been made to occupational diseases since the time of Hippocrates, Celsus and Galen, and later writers such as Helmont and Paracelsus wrote specifically about the diseases of miners, Ramazzini's "Essay on the Diseases of Artisans" was the first comprehensive work fully devoted to the subject. "Ramazzini methodically collected all this material and added the results of his own investigations into the diseases of manual workers and the relation between their occupations and diseases, besides drawing on the observations of others who had direct experience of such cases. He described miner's phthisis, lead-poisoning of potters, eye-trouble of gilders, printers and other artisans, and included diseases peculiar to doctors. Ramazzini was the first to recognize the social significance of occupational diseases and his book appeared at a most opportune time, since, with the beginning of industrial development in the eighteenth century, prevention of accidents from machinery and the general health of workers became increasingly important" (PMM). Cushing R12; Garrison-Morton 2121, 4478.101; Grolier *Medicine* 38; *Heirs of Hippocrates* 592 ("his most important work"); NLM/Krivatsy 9366; Osler 3760; PMM 170; Waller 7727; Wellcome IV, p. 467; Norman 1776.

Estimate: $2,000-3,000

ɔ739

RAVATON, Hughes. *Chirurgie d'armee, ou traité des plaies d'armes à feu, et d'armes blanches.* Paris: Pierre François Didot le jeune, 1768.

8° (199 x 127 mm). Royal privilege on 2V7v, seven full-page engraved plates showing surgical instruments, casts and traction apparatus for broken limbs and treatment of sword wounds (small marginal tear 2F1). Contemporary French dark red morocco gilt, covers with triple fillet borders and small floral tools at corners, central armorial device of the duc de Choiseul (Olivier 834 fer 7), spine gilt and gilt-lettered, g.e., Dutch gilt endpapers, blue silk marker (very slightly chipped at top and bottom of spine, one board edge slightly chipped, front joint slightly cracked). *Provenance*: Étienne-François de Choiseul-Stainville, duc de Choiseul (1719-1785), the dedicatee (supra-libros); F. Risto, "Medicin," (bookplate dated 1843 on verso of title).

FIRST EDITION, THE DEDICATION COPY. "One of the most important works on military surgery during the 18th century. Ravaton, a skillful army surgeon, was the first to employ a tin [actually iron] boot...for the 'hanging' position of broken bones. He was also the first to adopt the double-flap method in amputations" (Garrison-Morton). The Duc de Choiseul, Colonel-General of the Swiss Guards, veteran of the War of Austrian Succession, intimate of Madame de Pompadour, was ambassador to Rome and Vienna and France's minister of foreign affairs before he was forced into retirement by his enemies, who included Madame du Barry. Garrison-Morton 2154; Waller 7765; Wellcome IV, p. 478; Norman 1782A.

Estimate: $3,000-4,000

o740

RAY, John (1627-1705). *Historia plantarum species hactenus editas aliasque insuper multas noviter inventas & descriptas complectens.* London: Mary Clark for Henry Faithorne [vols. 1-2]; Samuel Smith & Benjamin Walford [vol. 3], 1686-1688-1704.

3 volumes, 2° (366 x 222 mm). Title printed in red and black. (Some minor foxing and light browning throughout; vol. 3 title browned.) Contemporary calf, gilt spines with red leather labels (leather cracked on front joint of Vol. 1, and starting on Vol.3); worn).

FIRST EDITION. Second state of volume I, with cancel title and imprimatur leaf. Ray's *magnum opus*, intended to classify all known European plants and attempting also to integrate the increasing knowledge of exotic flora. Ray adopted Jungius' morphological system and terminology. The work includes essays on practical aspects such as propagation and plant diseases, and a thorough and systematic survey of plants according to taxonomic principles. Wing R-394, R-395A; Wellcome IV, p. 479; Norman 1789.

(3)

Estimate: $1,000-1,500

ɔ741

RAY, John (1627-1705). *Historia Plantarum species hactenus editas.* London: Mary Clark for Henry Faithorne, 1686-1688.

2 volumes. 2° (Vol. 1: 440 x 282 mm; Vol. 2: 441 x 278 mm). Title printed in red and black (very slight browning to text, occasional foxing). Contemporary mottled calf, gilt spines with red leather labels, small white paper shelf labels on spines (leather cracked on front joints of Vol. 1; corners and spine worn). *Provenance*: William Constable (bookplate).

FIRST EDITION, LARGE PAPER COPY, second state of volume I. NLM/Krivatsy 9409; Wing R-394, R-395A; Norman 1790.

(2)

Estimate: $1,000-1,500

0742

RAY, John (1627-1705). *The wisdom of God manifested in the works of the creation.* London: Samuel Smith, 1691. 8° (168 x 104 mm). (stains on gatherings D, F & L; gathering H browned throughout). Contemporary sheep (rebacked in calf; worn at edges, and stained). *Provenance*: Matilda Douglas (inscription). FIRST EDITION. The begining of natural theology; Ray's vast knowledge of nature, from geology to anatomy was inspired by his belief that "There is for a free man no occupation more worthy and delightful than to contemplate the beauteous works of nature and honour the infinite wisdom and goodness of God" [Ray], and he used this knowledge to "evolve a system of nature which would reinforce man's conviction of the power of providence and guarantee against the incursions of materialism" (DSB). Wing R-410; Norman 1794. — RAY. *Miscellaneous discourses concerning the dissolution and changes of the world.* London: Samuel Smith, 1692. 8° (174 x 102 mm). (Some browning and occasional foxing throughout). Contemporary panelled calf (rebacked). FIRST EDITION. Revised and entitled *Three Physico-Theological Discourses* within a year of publication, this work demonstrated Ray's knowledge of paleontology. Ray considered fossils to be organic remains from the Deluge, as he sought scientific theories that accorded with Scriptural accounts. Wing R-397; Norman 1795. — RAY. *Philosophical letters between the late learned Mr. Ray and several of his ingenious correspondents, natives and foreigners. To which are added those of Francis Willughby Esq.* Edited by W. Derham, F.R.S. London: William & John Innys, 1718. 8° (196 x 118 mm). Contemporary panelled calf (rebacked, preserving original spine). *Provenance*: "A. Mainewaring, A. M. Jolli: 12.1726" (inscription); E.N. da C. Andrade (bookplate). FIRST EDITION. Norman 1798.
(3)

Estimate: $800-1,000

0743

RAY, John (1627-1705). *A collection of curious travels & voyages. in two tomes.* London: S. Smith and B. Walford, 1693. 8° (190 x 115). (Some browning to text throughout; small tears to Z3 & Bb3 not affecting text). Contemporary speckled panelled calf (rebacked). *Provenance*: W. Evetts (inscription on E1). FIRST EDITION (first issue, with publisher's catalogue on 2C7-2C8 in English). 2 volumes in one. The first English translation, by Ray, of Leonhard Rauwolf's *Aigentliche beschreibung der Raisz*, with accounts of travels in Europe, North Africa and the Middle East, and a catalogue by Ray of plants found there. Wing R-385; Norman 1796. — John RAY. *Catalogus plantarum Angliae, et insularum adjacentium.* London: J. Martyn, 1670. 8° (157 x 98 mm). (Very occasional light foxing to text; small tear to U8, not affecting text). Contemporary calf (rebacked). *Provenance*: marginalia. FIRST EDITION. An early work, concerned with identification rather than classification. NLM/Krivatsy 9406; Wing R-381; Norman 1788. — RAY. *Observations topographical, moral, physiological; made in a journey through part of the Low-Countries, Germany, Italy, and France: with a catalogue of plants not native of England, found spontaneously growing in those parts, and their virtues. -Catalogus stirpium in exteris regionibus.* London: John Martyn, 1673. 8° (181 x 113 mm). Engraved portrait frontispiece by William Faithorne (1616-1691). Later sprinkled calf (rebacked in morocco). FIRST EDITION. NLM/Krivatsy 9411; Wing R-399; Norman 1791. — RAY. *Synopsis methodica avium & piscium. -Synopsis methodica piscium.* London: William Innys, 1713. 8° (181 x 111 mm). 4 folding engraved plates (some spotting and light foxing throughout). 19th-century half calf, marbled boards, green leather spine label. *Provenance*: Charles Scott Sherrington (1857-1952), neurophysiologist (1885 inscription, presentation inscription dated 1930 to:) G.R. de Beer (1899-1972), zoologist and Darwinian scholar (inkstamp). FIRST EDITION. Norman 1797.
(4)

Estimate: $1,500-2,000

0744

RÉAUMUR, Réné-Antoine Ferchault de (1683-1757). *L'art de convertir le fer forgé en acier, et l'art d'adoucir le fer fondu, ou de faire des ouvrages de fer fondu aussi finis que de fer forgé.* Paris: P.A. Paulus-du-Mesnil for Michel Brunet, 1722.

4° (257 x 183 mm). 17 folding engraved plates by Ph. Simonneau. (A few leaves lightly browned, some very minor occasional pale spotting.) Contemporary French mottled calf, spine gilt (minor wear to extremities). *Provenance*: Francesco Conti (18th-century signature on title-page).

FIRST EDITION. Reaumur's work on converting iron into steel is the first reliable treatise on ferrous metal metallurgy. He "revealed for the first time hitherto secret details of the process and also came very close to the correct explanation of the nature of steel, that it is iron combined with a small quantity of carbon" (Hoover). It also contains information on rendering cast iron ductile. Reaumur's scientific interests covered a great many subjects and he made contributions to various fields including industrial technology, natural history, biology and genetics. Hoover 677; Singer, *Technology* III, pp. 28-29; Wolf II, p. 530; Norman 1803.

Estimate: $600-800

○745

RÉAUMUR, René-Antoine Ferchault de (1683-1757). *Memoires pour servir a l'histoire des insectes.* Paris: Imprimerie Royale, 1734-42.

6 volumes, 4° (255 x 188 mm). 50 folding engraved plates by Simonneau, engraved headpieces. Contemporary French mottled calf, spines gilt (wear to a few spine heads). *Provenance*: Noël-Antoine Pluche (1688-1761), author of *Spectacle de la nature* (1732), a highly successful work which played an important role in the education of children of wealthy families and was sometimes even used as a textbook of natural science. It exposed the English approach to natural theology to the French reading public (presentation inscription from the author on the front flyleaf of vol. 1: "Donné par l'auteur à N.A. Pluche").

FIRST EDITION. PRESENTATION COPY TO NOËL-ANTOINE PLUCHE of "a classic in the life history and bionomics of insects" (Sparrow). In addition to investigating insect behaviour, Réaumur also looked at the economic value of insects in the production of silk, honey, wax, lacquer and dye, as well as considering pest control. The *Histoire des insectes* was originally planned in ten volumes, but the project was halted after the sixth, possibly due to the author's jealous rivalry with his younger and more popular contemporary Buffon. A posthumously published supplement was published in 1928. A VERY FINE SET. Dibner *Heralds of Science* 192; Garrison-Morton 304; Nissen *ZBI* 3315; Wellcome IV, p. 484; Norman 1804.

(6)

Estimate: $1,500-2,500

○746

REDI, Francesco (1626-1697/98). *Osservazioni intorno alle vipere.* Florence: All'Insegna della Stella, 1664.

4° (228 x166 mm). Half-title, title-page in red and black with engraved vignette (emblem of the Accademia della Crusca), woodcut capitals (trifling foxing). Nineteenth-century vellum-backed gray cloth boards, edges sprinkled red. *Provenance*: Giovanni Battista Burali, gift of Redi (inscribed at base of titlepage "Al Sr. Gio: Batta Burali d'Autore"; additional inscription on preliminary flyleaf: "Di Gio.Batt^{a} Burali / Ex munere Francisci Redi Philosophi / Excellen^{mi} Aretini"); Stewart Paton, booklabel and note of deposit dated 1933.

FIRST EDITION, A PRESENTATION COPY of Redi's first book, a study of snake venom which marks "the beginning of experimental toxicology." Redi, who studied the snakes in the Medici's ducal pharmacy, "determined experimentally that, contrary to popular belief, a viper's venom had nothing to do with its bile but was manufactured in two glands...He studied the effects of snake poison, discovering it was effective only if injected into the bloodstream" (Norman), and recommended a tight ligature be applied above the bite to prevent the venom reaching the heart. The title-page vignette is found in both engraved and woodcut variants. Garrison & Morton 2102; *Heirs of Hippocrates* 561; NLM/Krivatsky 9460; Osler 3774; Prandi 2; Wellcome IV, p. 488; Norman 1810.

[*Bound with*:]

REDI, Francesco. *Esperienze intorno a diverse cose naturali, e particolarmente a quelle, che ci son portate dall'Indie...scritte in una Lettera al reverendissimo padre Atanasio Chircher.* Florence: All'Insegna della Nave, 1671. 4°. Half-title, titlepage in red and black with engraved Medici coat of arms, 6 full-page engraved plates (here bound before the half-title). (Minor, very light dampstains to last few leaves). FIRST EDITION of Redi's illustrated notes on certain curious botanical and zoological specimens from the East and West Indies (including star-anise, vanilla bean, chinchona leaf, and "snake stone"), written in the form of a letter to the Jesuit scientist Athanasius Kircher in Rome. Nissen ZBI 3321; NLM/Krivatsy 9444; Prandi 16; Sabin 68516; Wellcome IV, p. 488; Norman 1815.

Estimate: $1,200-1,800

747

REDI, Francesco (1626-1697/98). *Osservazioni intorno alle vipere.* Florence: All'Insegna della Stella, 1664.

4° (238 x 177 mm). Half-title, title-page in red and black with engraved vignette (emblem of the Accademia della Crusca), woodcut capitals. Contemporary vellum, edges speckled red (endleaves renewed, slight worming to vellum at joints, minor tear to spine).

FIRST EDITION, large paper copy(?), of Redi's first book on the origin, properties and treatment of snake venom. Garrison & Morton 2102; NLM/Krivatsky 9460; Prandi 2; Norman 1811.

Estimate: $800-1,200

748

REDI, Francesco (1626-1697/98). *Esperienze intorno alla generazione degli' insetti...scitte in una lettera all' illustrissimo signor Carlo Dati.* Florence: All' Insegna della Stella, 1668.

4° (229 x 167 mm). Half-title, title-page in red and black with engraved emblem of the Accademia della Crusca, π4r with proverb in Arabic type ("chi fa esperienze accresce il sapere; che e' credulo aumento l'errore"), 10 full-page unnumbered engravings (insects and insect eggs and larvae on food plants), 28 numbered engraved plates (two double-page), 2 small text engravings. First blank leaf present, used as flyleaf. (Staining to some lower margins, scattered foxing, a few plates with minor soiling). Contemporary vellum, spine lettered longitudinally in early hand (rear cover spotted, pastedowns discolored). *Provenance*: Fabbiano Lambardi, gift of the author, inscribed on front free endpage: "All' ill'mo Sig. Cav. Fabbiano Lambardi," plate 26 with additional caption ("Formica di Sorbo") in a bold contemporary hand; illegible small circular ink stamp on endpage.

FIRST EDITION, A PRESENTATION COPY of Redi's most influential book, which by remarkably simple experiments disproved the belief, dating back to Aristotle, that insects—especially carrion-eating flys—are spontaneously genererated in dead creatures. "Using four flasks, he filled two each with pieces of meat, corked two and left two open. Flies gathered within the second [pair] and the contents became wormy, the first putrid, but not wormy. He stated, 'thus the flesh of dead animals cannot engender worms unless the eggs of the living be deposited within'" (Dibner). Redi "observed the egg-producing apparatus in insects and he also used the microscope to good advantage in observing the morphological elements characteristic of the eggs of each species" (DSB). The attractive engraved plates, drawn from Redi's careful observations, depict a variety of insects in anatomical detail as well as their larvae and eggs. Dibner *Heralds of Science* 188; Grolier/Horblit 88; Nissen ZBI 3319; NLM/Krivatsky 9448; Prandi 7; Norman 1812.

Estimate: $3,500-4,500

749

REDI, Francesco (1626-1697/98). *Esperienze intorno alla generazione degli' insetti.* Florence: All' Insegna della Stella, 1668.

4° (253 x 177 mm). Half-title, title-page in red and black with engraved vignette emblem of the Accademia della Crusca, πr with proverb in Arabic type, 10 full-page unnumbered engravings, 29 numbered plates (no.29 an extra plate), 2 small text engravings. First blank leaf present. (Half-title and title lightly foxed). Contemporary pastepaper boards, spine covered in gray-blue paper, ENTIRELY UNTRIMMED (several small tears to spine, board slightly edges chipped). *Provenance*: "Ex libris T. Torreggiani," in a small hand on titlepage verso; Mario Cermenati, ink stamp on front free endpage.

FIRST EDITION, A FINE, UNTRIMMED COPY IN ORIGINAL BINDING, WITH THE RARE EXTRA PLATE not present in most copies (no. 29, a double-page engraving). "The twenty-ninth plate is engraved in a different style from the others. Because it appears in relatively few copies, the plate may have been added as an afterthought to the copies remaining after the greater part of the edition had been sold" (Norman). Dibner *Heralds of Science* 188; Grolier/Horblit 88 (illustrating the extra plate); NLM/Krivatsky 9448; Nissen ZBI 3319; Norman 1813.

Estimate: $3,000-4,000

ɔ750

REDI, Francesco (1626-1697/98). *Osservazioni...intorno agli animali viventi che si trovano negli animali viventi.* Florence: Piero Matini, all insegna del Lion d'Oro, 1684.

4° (238 x 170mm). Half-title, title-page in red and black with engraved vignette emblem of the Accademia della Crusca, page of errata at end of text, 26 numbered engraved plates, two folding (without the engraved portrait of Redi, found in a few copies, S4 with light stain, minor foxing to some leaves at end). Contemporary vellum, edges stained red, spine lettered longitudinally in an early hand. *Provenance*: Fabbiano Lambardi, gift of the author, inscribed (probably by Redi) at base of titlepage: "Al Sig^{e} Cavalier Fabbiano Lambardi / L'Autore," additional inscription (by recipient?) on front free endpage: "Dono di Sig.^{re} Redi Autore / al / Cav.^{e} Fabbiano Lambardi Can?)"; illegible small circular inkstamp on front pastedown.

FIRST EDITION, A PRESENTATION COPY of Redi's study of parasites, using the microscope. By dissection and collection, Redi identified some 108 endopathic and extopathic parasitic organisms including leeches, worms, snails, slugs, and cephalopods, carefully depicted in the engraved plates. Garrison & Morton 2448.1 ("Redi was among the first of the parasitologists"); Nissen ZBI 3323; NLM/Krivatsy 9458; Prandi 26; Wellcome IV, p. 488; Norman 1816.

Estimate: $1,500-2,000

○751

REDI, Francesco (1626-1697/98). *Osservazioni...intorno agli animali viventi che si trovano negli animali viventi.* Florence: Piero Matini, all insegna del Lion d'Oro, 1684.

4° (242 x 173mm). Title-page in red and black with engraved vignette emblem of the Accademia della Crusca, full-page engraved portrait of Redi by Adrianus Hallvech after Justus Supterman (dated 1673), page of errata at end of text, 26 numbered engraved plates, two folding (lacking half-title, a single minute wormhole to blank lower margins in first half of book, dampstain to upper outer corners of last 10 plates). Contemporary vellum, edges speckled red and brown. *Provenance*: Gianlorenzo Graziani, early inscription on title.

FIRST EDITION, A THICK-PAPER COPY WITH THE RARE ADDED PORTRAIT. This copy bulks 30mm. while the second Norman copy (preceding lot, a presentation from Redi), bulks only 20 mm.; watermarks in both copies are indistinct. Garrison & Morton 2448.1; Nissen ZBI 3323; NLM/Krivatsy 9458; Prandi 26; Norman 1817.

Estimate: $1,500-2,000

ɔ752

[RENAUDOT, Théophraste, editor (1586-1653)]. *Recueil general des questions traictees és conferences du Bureau d'Adresse, sur toutes sortes de matieres; par les plus beaux esprits de ce temps.* Paris: J. Baptiste Loyson, 1656 [Vol. 2 dated 1655].

4 volumes, 8° (171 x 112 mm). (One leaf torn in second volume.) Contemporary vellum (one headband broken).

Reprints papers read at weekly public conferences at the Bureau d'Adresse which Renaudot conducted from the summer of 1633 until fall of 1642. "These conferences, in which as many as six speakers participated, offered a wide variety of intellectual fare to the French public; the topics, chosen by the public, ranged indiscriminately over the fields of philosophy, morality and conduct, science, and the fantastic" (Norman). This collection contains the first four volumes of the *Recueil général*, with reports of *conférences* held from the beginning of the series up to 10 June 1641. Norman 1823.

[*With*:]

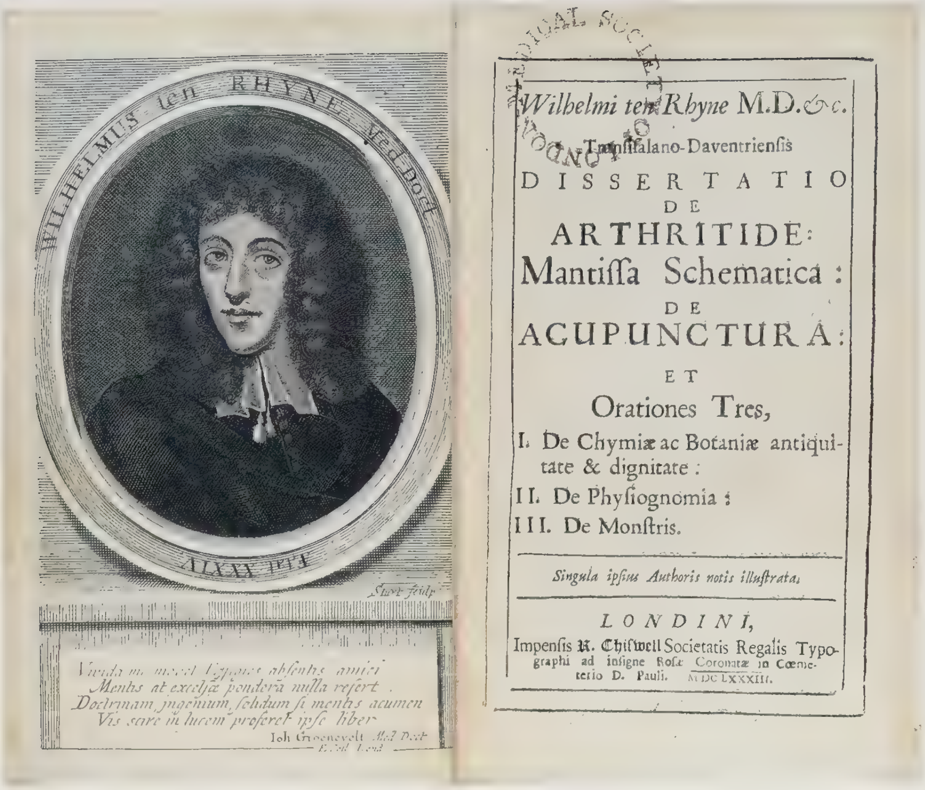
Le Journal des sçavans. Edited by Denis de Sallo (1626-1669). Vols. I-II (5 January-30 March 1665 [complete]; and 4 January-20 December 1666). Paris: Jean Cusson, 1665-1666.

4° (221 x 164 mm). 2 folding engraved plates (one with a short tear), numerous engraved and woodcut illustrations in text. Contemporary calf gilt (joints cracked, worn).

FIRST EDITION of the earliest scholarly periodical. "Founded and edited by 'Sieur de Hédouville,' pseudonym of Denis de Sallo, the *Journal des Sçavans* was 'the earliest scientific journal, ancestor of all its kind'" (Grolier/Horblit 95a). Norman 1183.

(5)

Estimate: $800-1,200


WILHELMUS ten RHYNE Med. Doct.
Ætat. XXXIV
Sturt sculp
Mentis at excelsæ pondera nulla refert.
Doctrinam, ingenium, solidum si mentis acumen
Vis scire in lucem proferet ipse liber
Ioh Groenevelt Med. Doct.

Wilhelmi ten Rhyne M.D. *&c.*
Transiſalano-Daventrienſis
DISSERTATIO
DE
ARTHRITIDE:
Mantiſſa Schematica:
DE
ACUPUNCTURA:
ET
Orationes Tres,
I. De Chymiæ ac Botaniæ antiquitate & dignitate:
II. De Phyſiognomia:
III. De Monſtris.

Singula ipſius Authoris notis illuſtrata.

LONDINI,
Impenſis R. Chiſwell Societatis Regalis Typographi ad inſigne Roſæ Coronatæ in Cœmeterio D. Pauli. MDCLXXXIII.

753

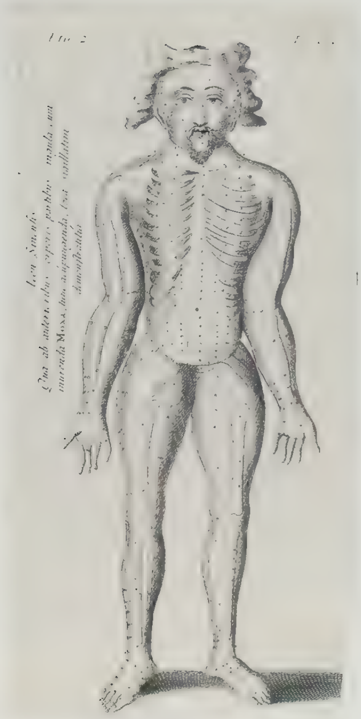
RHIJNE, Willem ten (1647-1700). *Dissertatio de arthritide: Mantissa schematica: De acupunctura: et orationes tres, I. De chymiae ac botaniae antiquitate & dignitate: II. De physiognomia: III. De monstris.* London: R. Chiswell, 1683.

8° (185 x 116 mm). Collation: A^8 a-b^8 B-Y^8. 192 leaves, Y8 blank. Engraved frontispiece portrait of the author by Sturt, 6 folding engraved plates, of which 5 showing acupuncture points. (Light marginal foxing and soiling, 3 plates with short tears at gutter not affecting images.)19th-century calf, morocco lettering-pieces on spine (extremities rubbed, joints split). *Provenance*: Medical Society of London (inkstamps); Wellcome Library (bookplate and withdrawal stamp).

FIRST EDITION OF THE EARLIEST PUBLISHED TREATISE ON CHINESE AND JAPANESE MEDICINE WRITTEN BY A EUROPEAN. From 1674 to 1676 Ten Rhijne served as resident physician at Deshima, the trading station of the Dutch East India company at Nagasaki Bay, and the only channel for the exchange of scientific information between Europe and Japan during the Floating Kingdom's two centuries of self-imposed isolation. "Ten Rhijne's treatise provided the Western world with its first detailed descriptions of Japanese and Chinese medicine, including acupuncture and moxibustion... Ten Rhijne correctly described acu-tracts but confused them with blood-vessels, a misidentification that persisted in later Western studies of acupuncture... he also attempted to find a link between Chinese medicine and the Western Galenic-Aristotelian medical tradition by translating 'Yang' as 'innate heat' and 'Yin' as 'radical moisture'" (Norman). The engravings are the first Western illustrations of the acu-points (those of Cleyer's *Specimen medicinae sinicae* (1682) show acu-tracts only). Although published a year later than Cleyer's better-known compilation of Boym's translations of Chinese medical texts (see lot 375), ten Rhijne's treatise is possibly the more important of the two works, as it represents the first attempt by a European to reconcile the widely divergent philosophies of Asian and European medicine.

RARE. Garrison-Morton 6374.10; NLM/Krivatsy 9603 (imperfect copy); Waller 9518; Wellcome IV, p. 517; Wing R-1326; Norman 2062.

Estimate: $7,000-10,000



753

○754

RICCIOLI, Giambattista (1598-1671). *Almagestum novum astronomiam veterem novamque complectens observationibus aliorum.* Bologna: Heirs of V. Benatius, 1651.

Volume one (all published) in 2 volumes, 2° (364 x 235 mm). Engraved frontispiece by F. Curtus in each volume, engraved arms on dedication leaves, 2 fine engraved folding lunar maps by Domenico Fontana after Francesco Maria Grimaldi, numerous woodcut diagrams in text (occational light browning.) Contemporary vellum, spines ink lettered.

FIRST EDITION. One of the most important anti-Copernican works. "Riccioli's scientific career epitomized the conflict between the old astronomy and the new: As a Jesuit committed to church doctrine, Riccioli was among the most vehement opponents of Copernican and Galilean theory, but as astronomer, Riccioli recognized that Copernican theory provided the simplest and best mathematical model of the solar system" (Norman). "Riccioli designed a series of experiments by which he hoped to disprove Galileo's conclusions, but instead he ratified them.... He observed the topography of the moon, and, in concert with Grimaldi, introduced some of the nomenclature that is still used to describe lunar features" (DSB). This work was the first to state that no water existed on the moon. Houzeau & Lancaster 9223; Norman 1826. (2)

Estimate: $3,000-4,000

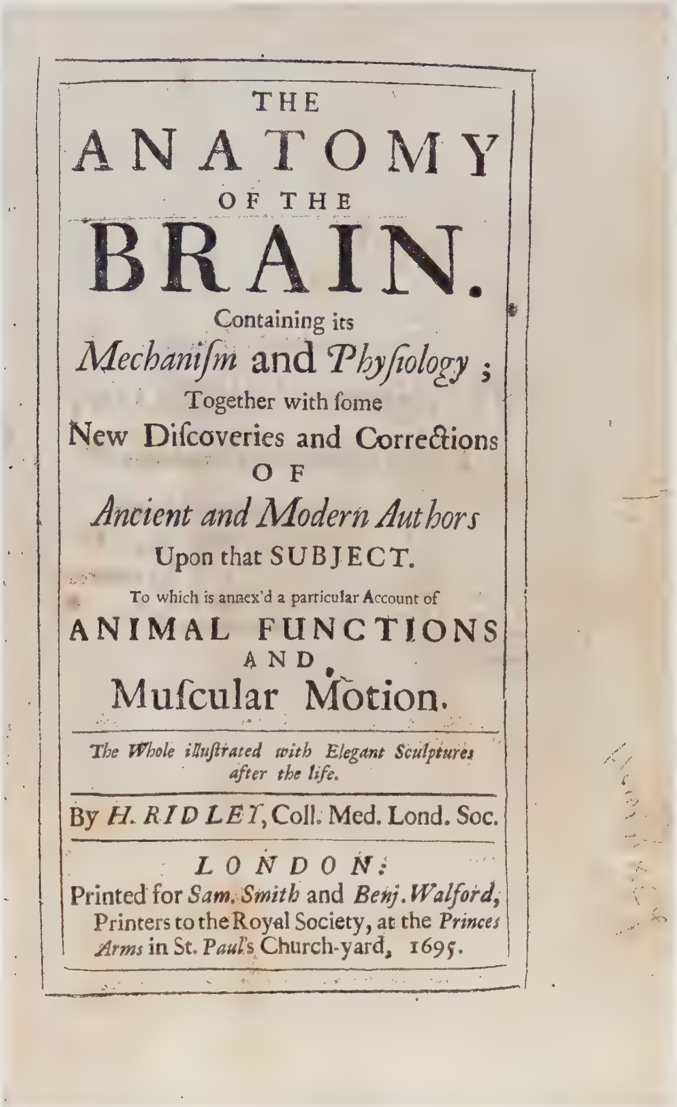
755

RICCIOLI, Giambattista (1598-1671). *Astronomiae reformatae tomi duo.* Bologna: Heirs of Vittorio Benatio, 1665.

2° (363 x 235 mm). Title page printed in red and black with engraved arms of Ferdinand Maria, Prince Elector of Bavaria, 2 engraved folding plates by Domenico Fontana after Francisco Maria Grimaldi (previously used in the *Almagestum novum*) and numerous woodcut illustrations in text. Contemporary vellum, spine ink lettered (light splitting to upper joint).

FIRST EDITION. Intended as a third and supplementary part of the *Almagestum novum*, the work conists of a series of individual tratises on the different bodies of the solar system and the fixed stars. Riccioli "noted the colored bands parallel to the equator of Jupiter and made observations of Satrn that, if he had had better instruments, might have led him to recignize its rings" (DSB). Although he knew of Huygens' *Systema saturnia* (1659, see lot 542), he disagreed with Huygens' ring theory. Houzeau & Lancaster 9230; Wellcome IV, p. 519; Norman 1827.

Estimate: $2,000-3,000



THE
ANATOMY
OF THE
BRAIN.
Containing its
Mechaniſm and *Phyſiology* ;
Together with ſome
New Diſcoveries and Corrections
OF
Ancient and Modern Authors
Upon that SUBJECT.
To which is annex'd a particular Account of
ANIMAL FUNCTIONS
AND
Muſcular Motion.

The Whole illuſtrated with Elegant Sculptures after the life.

By *H. RIDLEY*, Coll. Med. Lond. Soc.

LONDON:
Printed for *Sam. Smith* and *Benj. Walford*,
Printers to the Royal Society, at the *Princes Arms* in St. *Paul's* Church-yard, 1695.

756

RIDLEY, Humphrey (1653-1708). *The Anatomy of the Brain.* London: for Samuel Smith and Benjamin Walford, 1695.

8° (189 x 120 mm). 5 folding engraved plates by Michael Vander Gucht after drawings by William Cowper (plate 1 with clean tear). (Minor soiling and pale spotting.) Contemporary English gilt-panelled mottled calf (rebacked, worn and dried). *Provenance*: Richard Butler, Lincoln's Inn (engraved armorial bookplate dated 1703); G. Shuckburgh, All Souls, Oxford (engraved armorial bookplate); Sir George Shuckburgh (engraved armorial bookplate); Carlos F. MacDonald, M.D. (bookplate).

FIRST EDITION OF THE EARLIEST SEPARATE ENGLISH MONOGRAPH ON THE BRAIN. "His is the first English descrition of a sarcoma or new growth of the pineal gland. He attacks the use of imagination in scientific writings, and gives anatomical reasons for doubting whether the soul is more seated in the brain than in the body at large" (DNB). It also includes the first account of the circular venous sinus which Ridley names. Ridley added to the accounts of Willis (see lot 866) and Vieussens (see lot 841), "giving one of the first descriptions of the restiform body, the intracavernous venous sinuses and the venous drainage of the corpus striatum" (Norman). Garrison-Morton 1379.1; NLM/Krivatsy 9624; Russell 699; Wellcome IV, p. 526; Wing R-1449; Norman 1833.

Estimate: $5,000-7,000

757

ROMÉ DE L'ISLE, Jean-Baptiste Louis (1736-1790). *Essai de cristallographie, ou description des figures géométriques, propres à différens corps du regne minéral, connus vulgairement sous le nom de cristaux.* Paris: Didot jeune and Knapen & Delaguette, 1772 [paper watermarked 1742].

4° (249 x 193 mm). 2 folding letterpress tables, 10 folding engraved plates (some very minor marginal spotting). Contemporary calf gilt, gilt edges (joints cracked, worn). *Provenance*: Murat de l'Estaing family (engraved armorial bookplate with the family arms).

LARGE-PAPER COPY OF THE FIRST EDITION, in which Romé de L'Isle "identified 110 crystal forms (drawing upon Linnaeus, who had listed forty) and described in minute detail the minerals that exhibited them. He subdivided the various substances into salts, stones, pyrites, and metallic minerals, stating that he agreed with Linnaeus that geometrical form is the chief characteristic by which minerals may be classified" (DSB). Wellcome IV, p. 553; Norman 1847.

Estimate: $1,000-1,500

758

ROSÉN VON ROSENSTEIN, Nils (1706-1773). *Underrättelser Om Barn-Sjukdomar Och deras Bote-Medel: Tilförene styckewis utgifne uti de sma Almanachorna, nu samlade, tilökte och sörbättrade.* Stockholm: Lars Salvius, 1764.

8° (157 x 95 mm). Contemporary half sheep and marbled boards (some rubbing to covers, lacks free endpapers). *Provenance*: C.R. Borgenstjerna, Upsala 1814 (owner's signature on front paste-down).

FIRST EDITION of an important treatise on pediatrucs. "Sir Frederic Still considered this work 'the most progressive which had yet been written;' it gave an impetus to research which influenced the future course of paediatrics. Rosén was particularly interested in infant feeding. The *Underrättelser* were originally published in the calenders of the Academy and were later collected and issued in book form in 1764" (Garrison-Morton). Garrison-Morton 6323; NLM/Blake p. 387; Norman 1849.

Estimate: $2,000-3,000

759

ROUSSEAU, Jean Jacques (1712-1778). *Discours sur l'origine et les fondemens de l'inegalité parmi les hommes.* Amsterdam: Michel Rey, 1755.

8° (220 x 138 mm., uncut). Engraved frontispiece by D. Sornique after Eisen, engraved title vignette and headpiece by Fokke, title printed in red and black. Contemporary plain wrappers (upper cover almost detached).

FIRST EDITION. "Rousseau's *Discours* portrayed man alienated from himself by the excessive size, inequalities of wealth, and overwhelming complexity of modern society—a theme which both Hegel and Marx would amplify in the next century" (Norman). Cohen-de Ricci 903; Goldsmith 9064; Kress 5470; Sénelier 285; Tchemerzine V, p. 532; Norman 1850.

Estimate: $800-1,200

5760

RUDBECK, Olof (1630-1702). *Nova excercitatio anatomica, Exhibens ducta hepaticos aquosos, & vasa glandularum serosa, nunc primum inventa, aeneisque figuris delineata.* Väster°as: Eucharius Lauringerus, 1653.

4° (182 x 147 mm). Collation: A-F^4. 24 leaves. Errata on F4v. 2 engraved folding plates, the first signed "sculpsit Magn. Celsius," printer's woodcut device on title, woodcut headpiece and initial. (Plate 1 very slightly cropped at fore-edge and with portion of upper margin torn away, faint staining to gutter margins.) Late 19th-century half Japan vellum, marbled paper sides. Modern quarter morocco folding box. *Provenance*: anonymous owner (Sotheby's London, 8 November 1985, lot 678).

EXTREMELY RARE FIRST EDITION, documenting the discovery of the lymphatic system. In the fall of 1650, investigating the vascular systems of animals at the University of Uppsala, the youthful Rudbeck discovered previously undescribed vessels that carried a colorless fluid from the liver: the lymphatic vessels. At the same time he discovered the thoracic duct, which had recently been independently discovered by Pecquet in Paris (see lot 710). Further investigation led Rudbeck to conclude that the lymphatic system was a distinct and hitherto unknown physiological system. In 1652 he demonstrated his discoveries before Queen Cristina and her court, but delayed publishing them until a year later, a delay which occasioned a dispute over priority with the highly accomplished Danish physician Thomas Bartholin, who had published his own work on the lymphatic system in a pamphlet entitled *Vasa lymphatica* (Copenhagen 1653) only a few weeks before publication of Rudbeck's work. Although the controversy caused much ink to flow between Rudbeck and Bartholin's supporters, it is ultimately of less interest than the common context of these parallel researches: "Whether Pecquet or Rudbeck first identified the thoracic duct, or whether Bartholin or Rudbeck first described the lymphatic system, is finally less important than the testimony these disputes over priority give to the broader consensus across Europe as to the nature and direction of anatomical and physiological research after Harvey" (Grolier *Medicine*).

Published no doubt in a very small quantity, Rudbeck's work is ONE OF THE GREATEST RARITIES OF MEDICAL LITERATURE. The Norman copy is possibly the only one remaining in private hands. Garrison-Morton 1098; Grolier *Medicine* 28C (this copy exhibited); Waller 8283; Norman 1855.

Estimate: $15,000-20,000

5761

RUMSEY, James (1743-1792). *A short Treatise on the appplication of Steam, whereby is clearly shewn, from actual experiments, that Steam may be applied to propel Boats or Vessels.* Philadelphia: Joseph James, 1788.

8° (218 x 126 mm). 19th-century half leather (some wear). *Provenance*: David Redick (contemporary signature on title).

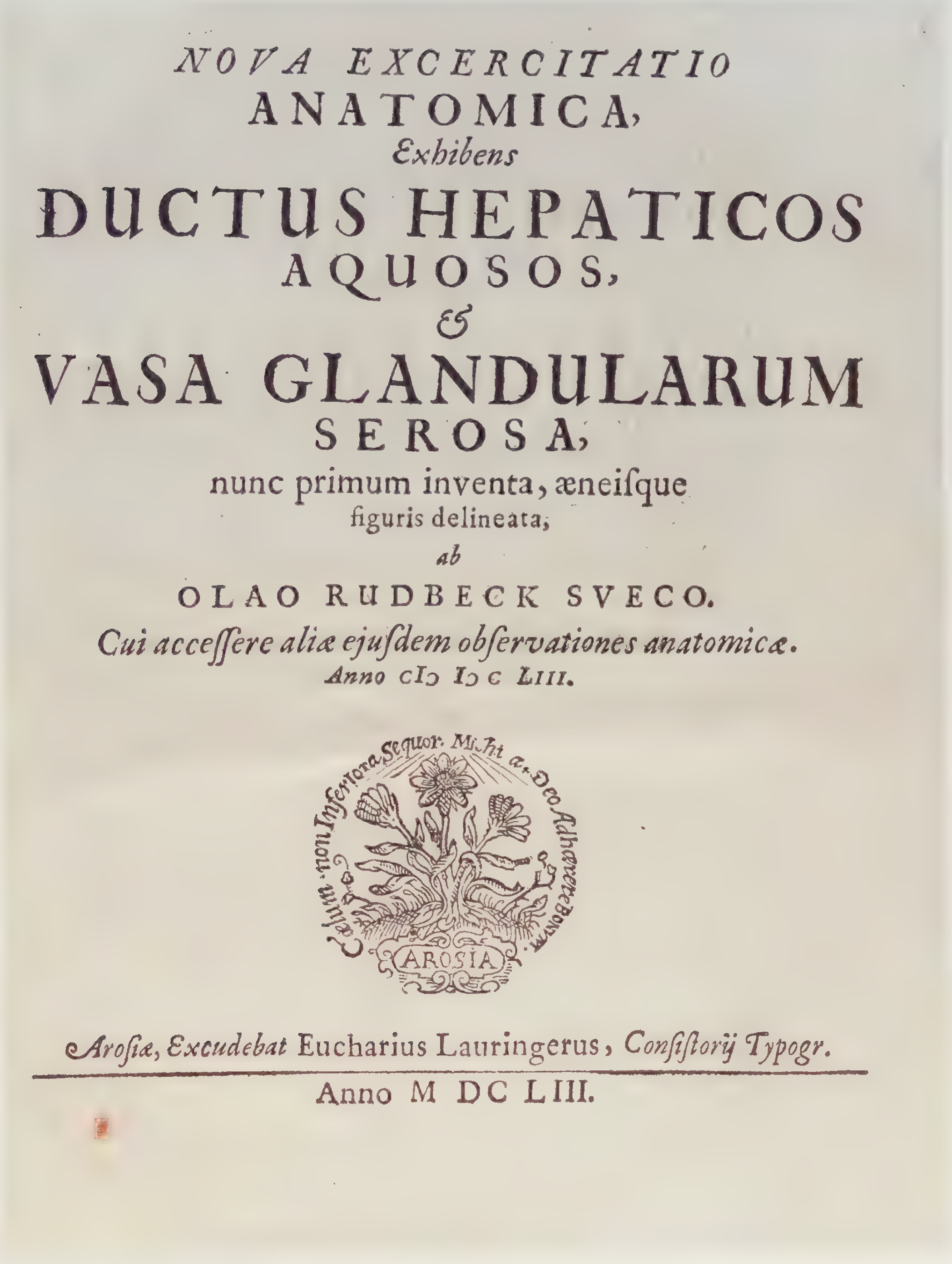
FIRST EDITION, second issue, with a few title corrections. The *Short treatise* initiated a controversy in the late 1780s between James Rumsey and John Fitch over who had priority over their respective steam-powered boats. Fitch was the first to publicize his invention and obtained a 14-year privilege for the manufacture of steam vessels, giving him a virtual monopoly of its production in America. Rumsey's *Short treatise* was a reply to Fitch's *Original steamboat supported*, published in 1788, in which Fitch had attacked Rumsey's claim to priority. Evans 21442; Norman 1859.

[*With*:]

BARNES, Joseph (fl. 1788). *Remarks on Mr. John Fitch's reply to Mr. James Rumsey's pamphlet.* Philadelphia: Joseph James, 1788.

8° (209 x 125 mm). (Some marginal dampstaining, some minor browning and spotting.) 19th-century half morocco (edges rubbed). FIRST EDITION of Barnes' paper supporting Rumsey's claim to priority in the invention of steam-powered water transport. Evans 20954; Norman 123. (2)

Estimate: $1,000-1,500



NOVA EXCERCITATIO
ANATOMICA,
Exhibens
DUCTUS HEPATICOS
AQUOSOS,
&
VASA GLANDULARUM
SEROSA,
nunc primum inventa, æneiſque
figuris delineata,
ab
OLAO RUDBECK SVECO.
Cui acceſſere aliæ ejuſdem obſervationes anatomicæ.
Anno CIↃ IↃ C LIII.

Aroſiæ, Excudebat Eucharius Lauringerus, *Conſiſtorij Typogr.*
Anno M DC LIII.

760 (actual size)

ɔ762

RUSH, Benjamin (1745-1813). *An Oration, delivered February 4, 1774, before the American Philosophical Society, held at Philadelphia. Containing, an Enquiry into the Natural History of Medicine Among the Indians in North-America, and a Comparative View of their Diseases and Remedies, with those of Civilized Nations.* Philadelphia: Joseph Cruikshank [1774].

8° (205 x 134mm). Section title for the *Appendix: Containing Proofs and Illustrations* (K2), terminal blank P4 present. (Titlepage with several areas lightly browned). Modern quarter speckled calf and marbled boards, gilt-lettered spine label. *Provenance*: Medical and Chirurgical Society of Aberdeen, gift of William Saunders, M.D., ink inscriptions at top of title, small ink stamp on A2r margin.

FIRST EDITION, EXTREMELY RARE, of the first treatise on American Indian medicine published in North America. As he notes in the preliminary advertisement, Rush consulted the published narratives of LaHontan and Charlevoix, but he principally drew upon first-hand information "taken from persons who had lived, or travelled among the Indians," especially the regimental surgeon Edward Hand (1744-1802, later a general in the Continental Army), who lived for several years at Fort Pitt (Pittsburg) and took a great interest in Indian medical practices. No copy of Rush's treatise has appeared at auction since at least 1979.

Rush, born in Philadelphia, studied at Princeton and in Philadelphia and completed his medical studies at the University of Edinburgh. After returning to America he was appointed professor of Chemistry at the College of Philadelphia (the present University of Pennsylvania Medical College), built up a successful practice and became friendly with Benjamin Franklin, Thomas Paine, John Adams and others active in the patriot movement (Paine composed his incendiary 1776 tract *Common Sense* at Rush's urging; Rush also suggested its title). Chosen a Pennsylvania delegate to the Continental Congress, Rush voted for and signed the Declaration of Independence (the only physician among the 56 who signed that document). In later years he carried on a wide correspondence, was first president of the Pennsylvania Medical Society, established the Philadelphia Dispensary (the first free medical clinic in the United States), served as president of the first anti-slavery society and was named first treasurer of the U.S. Mint (1797-1813). Through his publications and highly influential lectures, he "was widely recognized as the leading physician in the United States" (DSB). Austin 1678; Evans 13592; Garrison & Morton 6451.90; Guerra a-558; Sabin 74237; Norman 1861.

Estimate: $3,500-5,500

ɔ763

RUSH, Benjamin (1745-1813). *An Account of the Bilious remitting Yellow Fever, as it appeared in the City of Philadelphia, in the Years 1793.* Philadelphia: Thomas Dobson, 1794.

8° (230 x 142mm). (Very light spotting to a few leaves.) Original blue-gray paper boards, ENTIRELY UNTRIMMED (rebacked in buckram, new endleaves added).

FIRST EDITION. A fine copy of Rush's classic study of the yellow fever epidemic which ravaged Philadelphia in August and September 1793. Rush describes the symptoms and course of the infected and records personal observations of many infected persons. For treatment, he recommends blood-letting and other ineffective measures, and although Rush commented on the prevalence of mosquitos in Philadelphia that summer, he believed the cause of the infection to have been a cargo of rotting coffee beans on a wharf. Yellow-fever's true source—a mosquito-borne bacillus—was not pinpointed until 1900 by Walter Reed (1851-1902). Austin 1631; Garrison & Morton 5453; NLM/Blake, p.393; Sabin 74198; Waller 8325; Norman 1862.

Estimate: $700-900

0764

RUSH, Benjamin (1745-1813). *Medical Inquiries and Observations, Upon the Diseases of the Mind.* Philadelphia: Kimber & Richardson, 1812.

8° (207 x 125mm.). (Foxing, front free endleaf lacking, several leaves with marginal tears, back free endleaf loose). Contemporary mottled sheep, gilt-lettered spine label, edges stained yellow (minor shelfwear to board edges). *Provenance*: Thomas Bucklin, nineteenth-century booklabel; Charles L. Willmarth, bookplate.

FIRST EDITION, second issue (with additions to text in quire H). THE FIRST PSYCHIATRIC WORK BY AN AMERICAN, synthesizing Rush's clinical observations and practice in mental derangement, which began in 1787, when he was placed in charge of the insane patients at the Pennsylvania Hospital in Philadelphia. "Recognizing the need to see man as a whole, with body and mind 'intimately united,' Rush was deliberately unorthodox in devoting a large part of his physiological lectures to a discussion of the operations and functions of the mind" (DSB). Rush's enlightened and practical treatise represents "the first attempt made in the United States to place the study of mental illness on a scientific foundation." Austin 1670; Deutsch, *The Mentally Ill in America* (New York 1957), Chapter 5; Garrison & Morton 4924; Hunter & Macalpine. pp.662-670; Norman 1867.

Estimate: $600-800

0765

RUSH, Benjamin (1745-1813). *Six Introductory Lectures, to Courses of Lectures, upon the Institutes and Practice of Medicine, Delivered in the University of Pennsylvania.* Philadelphia: John Conrad [et al.], 1801. 8° (222 x 141mm). (Foxing, accession stamped in margins of several pages. Contemporary blue-gray paper boards, UNCUT (worn, paper spine chipped and defective). *Provenance*: "Lem'l Kolleck / 1802," signatures on flyleaves; Duke Hospital Library, bookplate stamped "withdrawn." FIRST EDITION. Rush's lectures were "committed to the press, in consequence of promises made to many of the members of the classes" (preface), the earliest, "Of the Necessary Connection Between Observation and Reasoning in Medicine," delivered in November 1791, the last in November 1801. Austin 1682; Norman 1864. — RUSH. *Sixteen Introductory Lectures, to Courses of Lectures upon the Institutes and Practice of Medicine., with a Syllabus...Two Lectures upon the Pleasures of the Senses of the Mind.* Philadelphia: Bradford and Inskeep, 1811. 8° (207 x 130mm). Half-title (very minor spotting). Contemporary mottled sheep, red morocco gilt-lettered spine label (rubbed). *Provenance*: James Rush, son of the author, signature dated 1849 on front pastedown; Henry S. Huch, signature and interesting marginalia in the final essay "On the Pleasures of the Mind." Incorporates and expands the previous work. Austin 1683; Norman 1866. — RUSH. *Essays, Literary, Moral & Philosophical.* Philadelphia: Thomas & Samuel Bradford, 1798. 8° (210 x 125mm). Contemporary sheep, speckled edges (very rubbed, spine largely defective). *Provenance*: Morris Brande, 1908, signature. FIRST EDITION of a collection of Rush's essays, mainly on social issues, advocating "temperance, abolition of slavery, prison reform, better education for girls, a comprehensive public school system, and a curriculum based on sciences and useful arts" (Norman 1863). — RUSH. "Observations Upon the Tranquillizer," in *Philadelphia Medical Museum*, I (1811), pp.169-176. Philadelphia: J.& A.Y. Humphrey, 1811. 8° (207 x 135mm). Engraved frontispiece portrait of Thomas Sydenham, by W.R. Jones after J. Houbraken, engraved plate of the "Tranquillizer" facing p.169 (severely browned). Contemporary half roan and marbled boards, spine lettered "1" (slightly rubbed). *Provenance*: Edward P. Taylor, signatures. First description of Rush's invention, "the most complete restraining device for controlling insane patients ever invented...Rush had long observed the pain, suffering and unsanitary conditions resulting from extensive use of the straitjacket" (Norman). Deutsch, p.79; Hunter & Macalpine, p.671; Norman 1865. (4)

Estimate: $1,200-1,800

5766

RUYSCH, Frederik (1638-1731). *Thesaurus anatomicus primus [-decimus]... Het eerste [-tiende] anatomisch cabinet...* Amsterdam: Joannes Wolters (parts I-IX), Jansson-Waesberg (part X), 1701-1716.

10 parts in one volume, 4° (227 x 178 mm). 41 engraved plates including 22 folding plates (2 folding plates torn, the following signatures misbound: part I A-H after 7*4 in *Thesaurus animalium*, part VI *2 after M2 and (A)-(D) after Ettmüller's letter.) Contemporary calf (some wear to spine ends and edges). *Provenance*: Dr. Martin van Winck (ownership inscription on front free endpaper).

FIRST EDITION. Ruysch's description of his anatomical preparations which were exhibited in several small rented houses in Amsterdam. This "cabinet" became a major attraction for foreign visitors. The collection was subsequently sold to Peter the Great. The engraved illustrations (mostly by Huijberts) which accompany the text "deserve special mention for their whimsical, almost surrealistic, quality: quaintly posed skeletons surrounded by stuffed monsters, strange reptiles, dried plants and sea creatures" (Heirs of Hippocrates). Garrison-Morton 389; *Heirs of Hippocrates* 617 (1726-1744 edition); Wellcome IV, p. 599; Norman 1875.

[*Bound with*:] *Thesaurus animalium primus... Het eerste cabinet der dieren...* Amsterdam: Joannes Wolters, 1710. Engraved additional title, title printed in red and black, and 7 engraved plates including 5 folding (signatures A-F misbound after *4 in part I of *Thesaurus anatomicus* and engraved plates bound in at end.) FIRST EDITION. *Heirs of Hipporates* 616 (1725 edition); Norman 1876.

[*Bound with*:]

RUYSCH. *Adversariorum anatomico-medico-chirurgicorum decas prima [secunda]... cui adjuncta est Michaelis Ernesti Ettmulleri epistola problematica ad virum clarissimum Fred. Ruyschium... de ovario nova.* Amsterdam: Jansson-Waesberg, 1717-1720. 2 parts (of 3) in one volume. Title printed in red and black, 5 engraved plates including 4 folding. FIRST EDITION. Included in part one is Michael Ernst Ettmüller's *Epistola problematica...* with separate title-page, Amsterdam, 1715. The third part, not included in this collection was published in 1728. Norman 1877. Sold not subject to return.

Estimate: $4,000-6,000

5767

SALA, Angelo (1576-1637). *Saccharologia, darinnen erstlich von der Natur qualiteten, nützlichem Gebrauch und schädlichen Missbrauch des Zuckers... beschrieben und angezeigt wird.* Rostock: Johann Hallervord, 1637.

8° (149 x 92 mm). Gothic type. The preliminary quires):(^{8} 2):(^{4} (:)^4 are bound before the *Hydrelaeologia* which is followed by the rest of the text A-T^8 V^4. Contemporary vellum (remains of linen ties). *Provenance*: Johann Adam (inscription on front free endpaper); Bibliotheca Fr. Fr. Misericordiae (inscription on front free endpaper); F.F.M. Graz (ink stamp on title).

FIRST EDITION. One of the earliest chemical analyses of sugar. BM/STC *German* (17th-c.) S131; NLM/Krivatsy 10140; Partington II, p. 276; Norman 1884.

[*Bound with*:]

SALA. *Essentiarum vegetabilium anatome. Darinnen von den fürtrefflichsten Nutzbarkeiten der Vegetabilischen Essentzen in der Artzney... gelehret unnd gehandelt wird.* Rostock: Johann Hallervord, 1635. Second Edition. NLM/Krivatsy 10134; Norman 1883. — SALA. *Hydrelaeologia, Darinnen wie man allerley Wasser, Oliteten, und brennende Spiritus der Vegetabilischen Dingen durch gewisse Chymische Regeln und manualia... distillieren und rectifieren soll... tractirt und gehandelt wird.* Rostock: Johann Hallervord, 1639. Second Edition. BM/STC *German* (16th-c.) S131; NLM/Krivatsy 10135; Norman 1886. — SALA. *Spagyrische Schatzkammer. Darinnen von unterschiedlichen alss Vorbereitenden, Erbrechmachenden... Spagyrischen Medicamenten... trewlich erwiesen und gelehret wird.* Rostock: Johann Hallervord, 1637. BM/STC *German* (16th-c.) S132; NLM/Krivatsy 10141; Norman 1885.

Estimate: $2,000-3,000

○768

SANTORINI, Giovanni Domenico (1681-1737). *Observationes anatomicae.* Venice: Giovanni Battista Recurti, 1724.

4° (259 x 193 mm). 3 engraved folding plates. Contemporary half vellum and marbled boards (slight rubbing to edges). *Provenance:* J. Segnier (? signature on front free endpaper).

FIRST EDITION. "Santorini was one of the ablest dissectors of his day. In the above work many new discoveries of anatomical details are set forth, together with corrections of some of the errors of earlier anatomists. The work describes the four major discoveries for which Santorini is known eponymically: Santorini's cartilage, Santorini's vein, Santorini's duct, and Santorini's caruncula" (Garrison-Morton). Garrison-Morton 392; Waller 8474; Norman 1887.

Estimate: $600-800

○769

SANTORINI, Giovanni Domenico (1681-1737). *Septemdecim tabulae...* Edited by Michael Girardi. Parma: [Giambattista Bodoni for] Regia typographia, 1775.

4° (340 x 255 mm., uncut). 42 engraved folding plates by Giovanni Battista Piazzetta and others, including 21 outline key plates. Contemporary boards (edges worn). *Provenance:* Duplicate E.J.C. (ink stamp on pastedown).

FIRST EDITION. Apart from its importance as an anatomical work, Santorini's *Septemdecim tabulae* is noteworthy as the only significant medical book printed by Giambattista Bodoni. Choulant pp. 262-264; Garrison-Morton 399.1; *Heirs of Hippocrates* 788; Norman 1888.

Estimate: $2,000-3,000

○770

SANTORIO, Santorio (1561-1636). *Commentaria in artem medicinalem Galeni.* Latin translation by Niccolò Leoniceno. Venice: Giacoppo Antonio Somasco 1612.

2° (322 x 215 mm). 3 parts in one, part 3 separately titled, signed and paginated, first title printed in red and black, printer's large woodcut device on both titles, double column, woodcut initials, head- and tailpieces. (✠2.3 [dedication leaf and leaf of commendatory verse] detached, worm track in gutter in parts 1-2 catching a few letters, brwoning and mostly marginal dampstaining in part 3.) Modern vellum. *Provenance*: Purchase note dated 1620 on front flyleaf; a few early and later marginalia.

FIRST EDITION, VERY RARE. Santorio was the founder of metabolic research, and was the first to use precision instruments for quantitative physiological studies, an innovation that led his name to be linked with Harvey in the 17th and 18th centuries as a co-founder of the "new medicine." As professor of theoretical medicine at the University of Padua, Santorio "was required to present and comment upon the *Ars parva* of Galen, the *Aphorisms* of Hippocrates, and the first book of the *Canon* of Ibn Sina [Avicenna]. This obligation led him to publish most of his own views in the restricted form of scholarly commentaries on these three works. Cautious and introverted, Santorio preferred to express himself through allusions and to envelop his bold and original ideas in a thick layer of conventional erudition" (DSB). Later editions contain Santorio's description of his thermometer, similar to Galileo's open-air thermoscope, which Santorio may have known of, but with the addition of a scale with fixed reference points. Garrison-Morton 572.2; NLM/Krivatsy 10246; Norman 1889.

Estimate: $1,500-2,000

ɔ771

SANTORIO, Santorio (1561-1636). *Ars de statica medica aphorismorum sectionibus septem comprehensa.* Venice: Nicolò Polo, 1614.

12° (130 x 69 mm). Collation: a^{12} A-G^{12}. 95 leaves (of 96, without a1 blank, a2 blank present). Italic type, woodcut device on title, woodcut initials, woodcut and typographic head- and tailpiece ornaments. (Lower corner of E11 torn away with loss of about 5 words, minor staining to A4, title marginally soiled and with tiny marginal tear.) Contemporary limp vellum, traces of two ties (lacking ties, upper inner hinge broken). *Provenance*: remains of vellum shelfmark label on spine; Andrew Fletcher of Saltoun (signature ["Fletcher"] on title, his(?) shelfmark on recto of blank leaf a2).

EXCEPTIONALLY RARE FIRST EDITION of a medical classic. Ranked with Harvey's *De motu cordis* throughout the 17th and 18th centuries, called by Boerhaave the most perfect of all medical books, Santorio's *Ars de statica medica* "introduced quantitative experimentation into biological science" (DSB). In it Santorio describes, by means of a series of "incisive and elliptic aphorisms" (op. cit.), his researches into the variations in weight caused in the human body by ingestion and excretion. The title is based on a Hippocratic concept of health as a proper balance of the bodily humors, a state of equilibrium between the substances consumed by the organism and those rejected by it. "In Santorio's view, however, this balance was expressed not only in terms of kind but of degree as well—static medicine therefore required exact methods of detection, description, and measurement of degree with respect to what the body consumes and expels" (Grolier *Medicine*). Using himself as a subject, Santorio sought to verify this theory through a series of quantitative experiments carried out with the aid of a weighing-chair (a suspended chair counterbalanced by weights), pulse-clock, thermometer, and other measuring instruments, most of his own invention. From his observations he correctly concluded that a large part of excretion takes place invisibly through the skin, and showed that this *perspiratio insensibilis* varies considerably from day to day due to a combination of physiological and environmental factors (sleep, cold, heat, diet, fever, age, etc.) In order to carry out his program Santorio devised a number of instruments, including the thermometer (he was the first to apply fixed reference points to Galileo's thermoscope), which he was the first to use in physiological experiments and in medical practice. Through his invention and use of new instruments, Santorio "demonstrated that proper instrumentation is as important to medicine as Galileo had shown it is to physics and astronomy" (Grolier *Medicine*). Although he attributed exaggerated diagnostic value to his discoveries, claiming that precise knowledge of the quantity of "*perspiratio insensibilis*" could provide essential information for hygiene and therapeutics, Santorio made a fundamental contribution to modern medicine, by opening "the way to mathematical and experimental analysis of physiological and pathological phemomena" (DSB).

The *Ars de statica medica* "dazzled" Santorio's contemporaries (DSB) and was frequently reprinted and translated. Of this exceedingly rare first edition only one copy is recorded in America; the Norman copy appears to be the only copy to have come on the market in the past 40 or more years. Garrison-Morton 573; Grolier *Medicine* 25 (this copy exhibited); Wellcome 5760; Norman 1890.

Estimate: $15,000-20,000

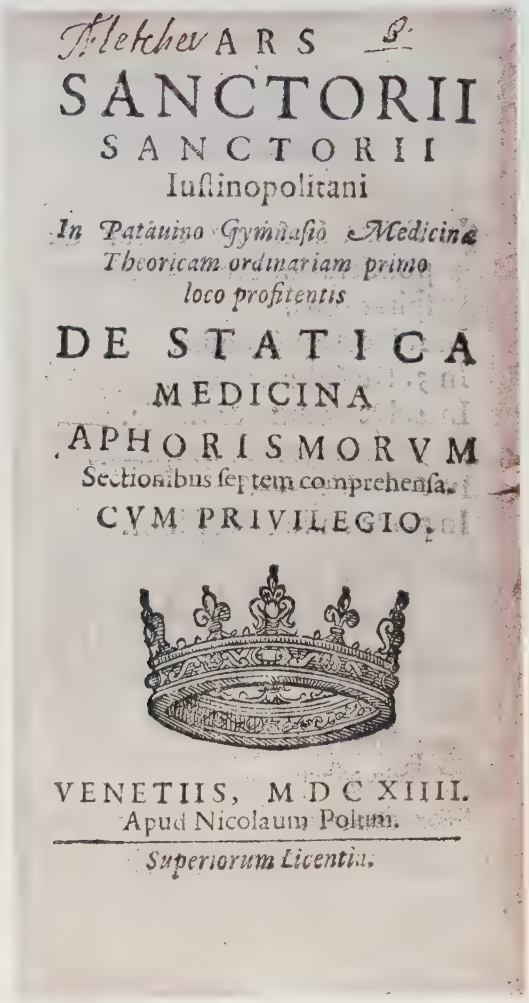
ɔ772

SANTORIO, Santorio (1561-1636). *Commentaria in primam fen priomi libri Canonis Avicennae.* Latin translation by Gerardus Cremonensis. Venice: Jacopo Sarcina, 1625.

2° (317 x 217 mm). Title printed in red and black, printer's woodcut device, woodcut initials and headpieces, 43 woodcut text illustrations and diagrams, including a few repeats. Fol. A4 blank and present. (Occasional soiling, mostly marginal dampstaining, a few leaves browned.) Modern vellum. *Provenance*: $Fran^{co}$ Maria Cavone (17th-century inscription on title); a few early marginalia.

FIRST EDITION, containing the first illustrations of Santorio's measuring devices. "The chief value of this work lies in its revelation (still quite hesitant, although accompanied by diagrams for the first time) of the principles of construction" of various diagnostic and measuring instruments designed by Santorio (DSB), including a hygrometer, a pendulum for measuring pulse rate, a syringe for extracting bladder stones, and a bathing bed. Garrison-Morton 2668; Norman 1893.

Estimate: $2,000-3,000



Fletcher ARS B·

SANCTORII

SANCTORII

Iuſtinopolitani

In Patauino Gymnaſio Medicinæ

Theoricam ordinariam primo

loco profitentis

DE STATICA

MEDICINA

APHORISMORVM

Sectionibus ſeptem comprehenſa.

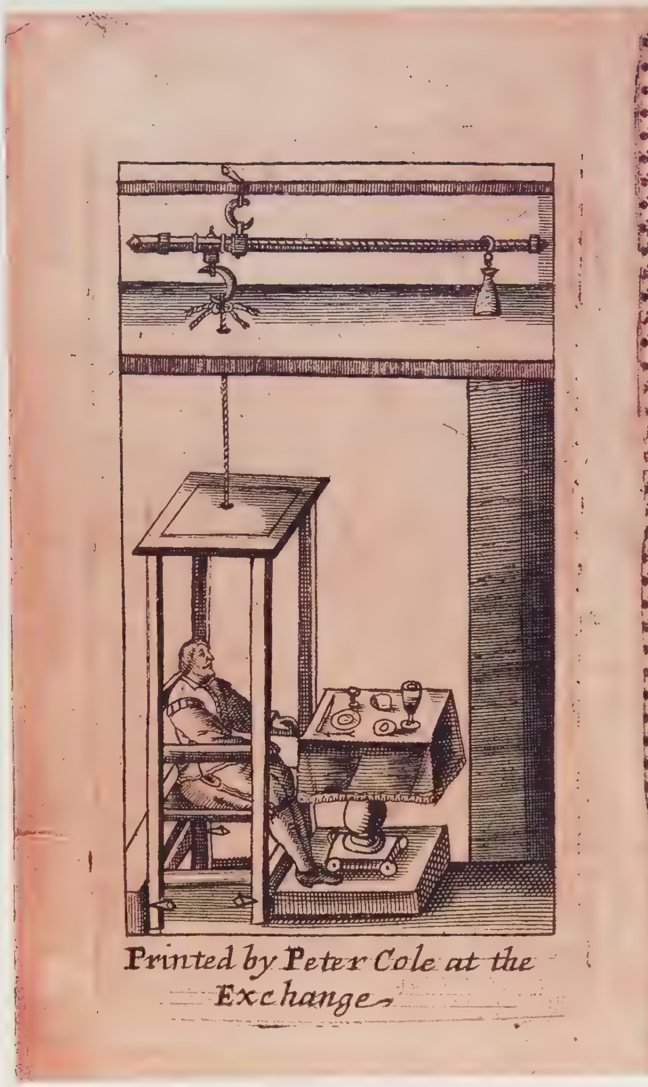
CVM PRIVILEGIO.

VENETIIS, M D C XIIII.

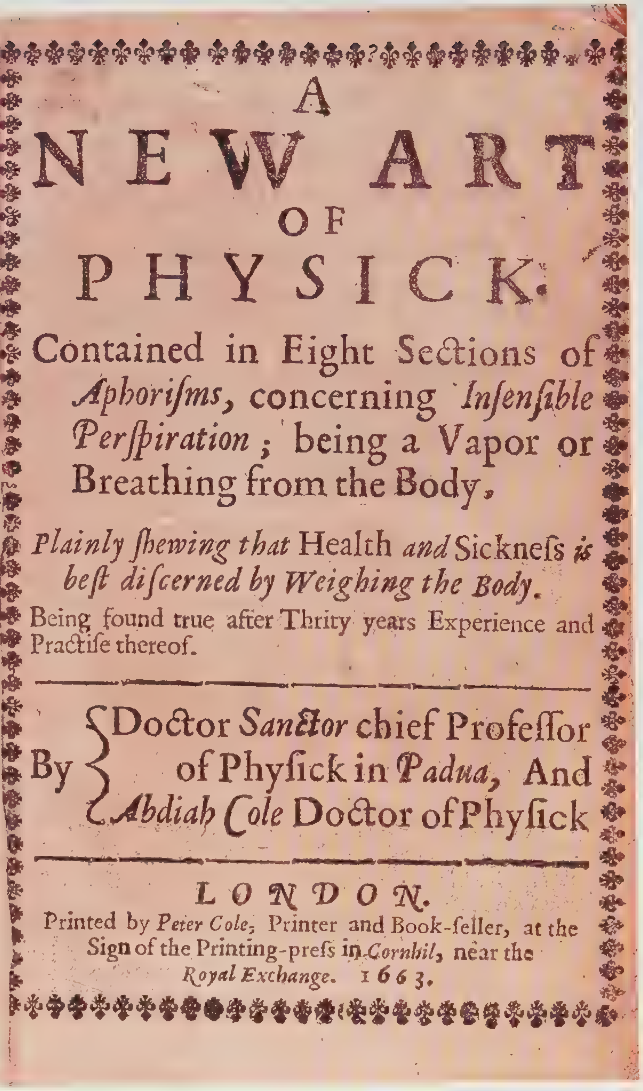
Apud Nicolaum Polum.

Superiorum Licentia.

771 *(actual size)*



Printed by Peter Cole at the Exchange



A
NEW ART
OF
PHYSICK:
Contained in Eight Sections of
Aphoriſms, concerning *Inſenſible*
Perſpiration; being a Vapor or
Breathing from the Body.

Plainly ſhewing that Health *and* Sickneſs *is*
beſt diſcerned by Weighing the Body.
Being found true after Thrity years Experience and
Practiſe thereof.

By { Doctor *Sanctor* chief Profeſſor of Phyſick in *Padua*, And *Abdiah* Cole Doctor of Phyſick

LONDON.
Printed by *Peter Cole*, Printer and Book-ſeller, at the
Sign of the Printing-preſs in *Cornhil*, near the
Royal Exchange. 1663.

773

SANTORIO, Santorio (1561-1636). *A new art of physick. Contained in eight sections of aphorisms, concerning insensible perspiration; being a vapor of breathing from the body. Plainly shewing that health and sickness is best discerned by weighing the body*. Translated by Abdiah Cole (1610?-1670?). London: Peter Cole, 1663.

Small 8° (142 x 87 mm). Collation: B-G^8 47 leaves (of 48, without G8 blank). Engraved frontispiece showing a man seated in a chair-scale before a table set with food, type ornament title border, typographic headpiece and initial ornaments. 8-page list of books printed by Peter Cole (B5r-B8v). (Slight marginal fraying to first 3 leaves, light overall discoloration.) Modern half calf.

FIRST EDITION IN ENGLISH, EXTREMELY RARE, apparently unrecorded. Cole, a self-described physician but not recorded as a member of the College of Physicians, was "a copious tranlsator and manufacturer of medical books...all either translations of standard continental works, or semi-popular works of an inferior stamp" (DNB). His name is often joined in the titles to that of Nicholas Culpeper in works that appeared after Culpeper's death, implying that Cole's principal function was one of editor. This edition is unrecorded in Wing, the NUC, or any of the standard bibliographies, which generally mistakenly call John Davies' 1676 translation the first edition in English. Norman 1891.

Estimate: $3,000-4,000

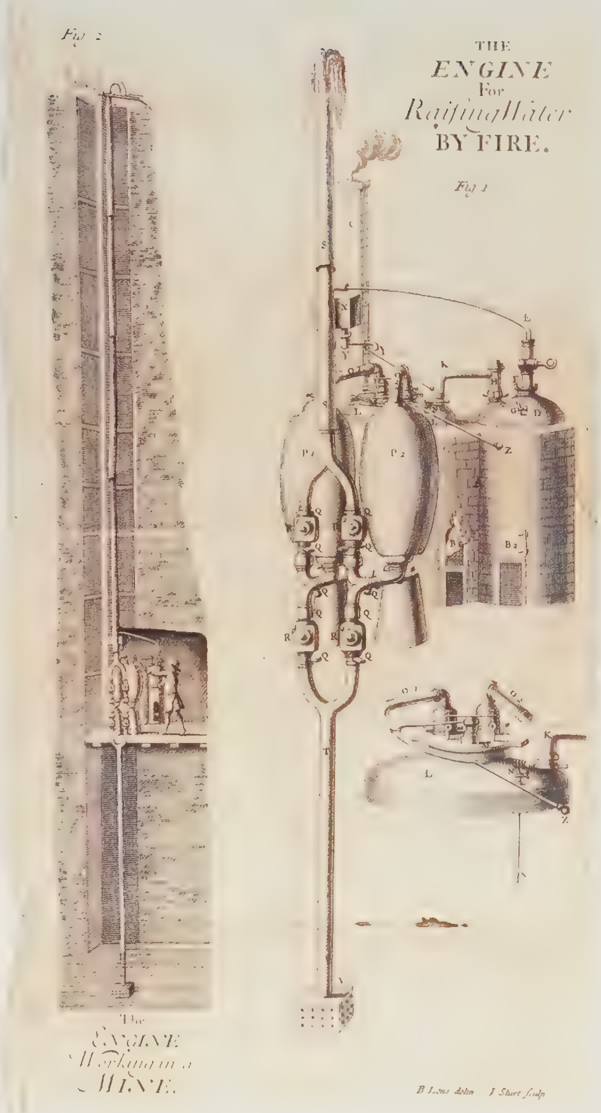
○774

SAVERY, Thomas (1650?-1715). *The Miner's Friend; or, An Engine to Raise Water by Fire, Described. And the Manner pof Fixing it in Mines. With An Account of the several other Uses it is applicable unto; and an Answer to the Objections made against it.* London: S. Crouch, 1702.

8° (177 x 110mm). Folding engraved plate by I. Sturt after B. Lens (detailed keyed diagram of the steam-pump mechanism and its installation in a mineshaft). (Bound without final blank, small early reinforcement to verso of plate). Contemporary English red morocco, covers gilt-panelled with small fleurons at corners, spine compartments gilt with an S-shaped volute tool, gilt edges (front hinge cracked and hinge a bit worn, two corners rubbed). *Provenance*: William Hanbury of Kelmarsh, Northamptonshire (d.1768), a member of the Royal Society (engraved armorial bookplate); front flyleaf with ink inscription: "C.P. Feb 28 1759 0.2.0."

FIRST EDITION, A TALL, ATTRACTIVELY BOUND COPY of Savery's description of his steam pump which, "though not a steam engine in the modern sense of the word, embodied the first practical application of the force of steam to mechanical purposes" (DNB). His device, patented in 1698 and demonstrated before the Royal Society in 1699, "was a condensing type engine in which the steam was caused to condense within a receiver, thereby creating a vacuum and raising water to be pumped up within connected pipes" (Dibner). While designed specifically to pump water from deep mine-shafts (as shown in Sturt's plate), Savery's invention, with some modifications by Thomas Newcomen, was found adaptable to supplying water to tall buildings and produce mechanical power by raising water to turn waterwheels. In 1712 the first working device was installed in the Warwichshire coal mines, allowing deeper shafts to be worked. RARE. Dibner 177 (article published in *Phil. Trans. Royal Society,* 1699); Honeyman sale 2766; Norman 1895.

Estimate: $7,000-10,000



5775

SCARPA, Antonio (1752-1832). *Tabulae neurologicae ad illustrandam historiam anatomicam cardiacorum nervorum, noni nervorum cerebri...* Pavia: B. Comini, 1794.

Chancery broadsheets (602 x 452 mm). 14 engraved plates including 7 outline plates (scattered light foxing.) Later green half vellum and marbled boards.

FIRST EDITION. "SCARPA'S ANATOMIC MASTERPIECE, the product of twenty years of research on the nerves. The seven life-size plates illustrate the human glossopharyngeal, vagus and hypoglossal nerves, which had never before been correctly shown. Scarpa was also the first to delineate correctly the nerves of the heart, and showed that the terminal ramifications of the cardiac nerves are directly connected to cardiac muscular fibers" (Norman). Choulant p. 299; Garrsion-Morton 1253; *Heirs of Hippocrates* 1105; Waller 8545; Norman 1897.

Estimate: $2,000-4,000

5776

SCARPA, Antonio (1747-1832). *Saggio di osservazioni e d'esperienze sulle principali malattie degli occhi...* Pavia: B. Comini, 1801.

4° (310 x 228 mm., uncut). Engraved portrait frontispiece and 3 engraved plates by F. Anderloni after Scarpa's drawings. Contemporary limp boards, printed paper label on spine.

FIRST EDITION. The first textbook on the diseases of the eye to be published in Italian. "The author has been called the father of Italian ophthalmology" (Garrison-Morton). Garrison-Morton 5835; *Heirs of Hippocrates* 1106; Waller 8543; Norman 1899.

Estimate: $800-1,200

5777

SCARPA, Antonio (1747-1832). *Sull'ernie memorie anatomico-chirurgiche.* Milan: dalla Reale Stamperia, 1809.

Chancery broadsheets (690 x 505 mm), 20 engraved plates by Faustino Anderloni, including 10 outline plates. Modern half morocco antique.

FIRST EDITION. "This authoritative work on hernia, from which are derived the eponyms 'Scarpa's fascia' and 'Scarpa's triangle' of the thigh, is enhanced by the ten life-size plates artistically drawn by Scarpa himself, depicting the operation and anatomical sections. Accompanying the principal plates are ten outline keys. (Heirs of Hippocrates). Garrison-Morton 3583; *Heirs of Hippocrastes* 1110; Waller 8544; Norman 1901.

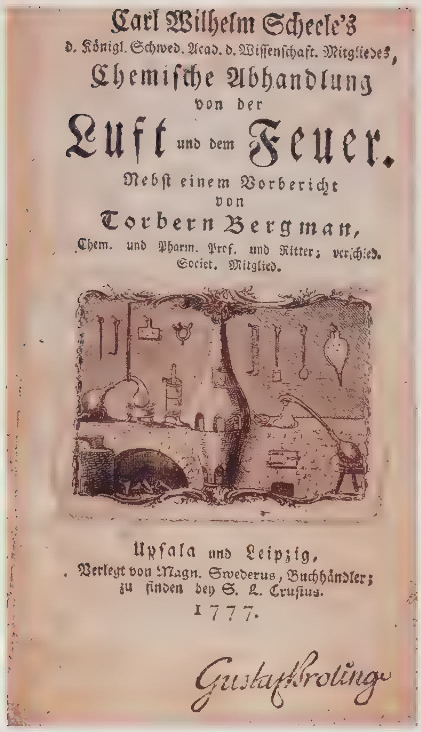
Estimate: $1,000-1,500

5778

SCARPA, Antonio (1747-1832). *Memoria sulla legatura delle principali arterie degli arti con una appendice all' opera sull' aneurisma.* Pavia: Pietro Bizzoni, 1813. 4° (334 x 228 mm). Contemporary plain blue wrappers (rebacked); cloth folding case. FIRST EDITION. Scarpa continued to perform pioneering research in the field of diseases of the arteries and all other vessels. Garrison-Morton 2940; Norman 1902. —SCARPA. *Sull' ernia del perineo memoria* Pavia: Pietro Bizzoni, 1821. 4° (385 x 258 mm). 5 engraved folding plates. Contemporary plain blue wrappers (rebacked). FIRST EDITION. "Scarpa's treatise on perineal hernia includes the classic description of sliding or slipped hernia, in which a portion of the large bowel is outside the femoral or inguinal sac" (Norman). Garrison-Morton 3584; Norman 1903.

(2)

Estimate: $1,000-1,500



Carl Wilhelm Scheele's
d. Königl. Schwed. Acad. d. Wiſſenſchaft. Mitgliedes,
Chemiſche Abhandlung
von der
Luft und dem Feuer.
Nebſt einem Vorbericht
von
Torbern Bergman,
Chem. und Pharm. Prof. und Ritter; verſchied.
Societ. Mitglied.

Upſala und Leipzig,
Verlegt von Magn. Swederus, Buchhändler;
zu finden bey S. L. Cruſius.
1777.

Gustaf Broling

780

o779

SCARPA, Antonio (1747-1832). *De penitiori ossium structura commentarius.* Leipzig: Göschen for Hartknoch, 1799. 4° (284 x 221 mm.) 3 engraved plates by Faustino Anderloni (some browning and staining.) Contemporary limp brown boards (rebacked). FIRST EDITION. "A treatise on the cancellous or spongy tissue of the bones, the double origin of callous in fractures, the nature and variety of exostoses or bony tumors, and the process of bone absorption" (Norman). Garrison-Morton 1553; Norman 1898. — SCARPA. *Memoria chirurgica sui piedi torti congeniti dei fanciulli e sulla maniera de correggere questa deformità.* Pavia: G. Comini, 1803. 4° (290 x 206 mm). 5 engraved plates including 3 folding by Faustino and Petro Anderloni (some staining to plates.) Modern green half morocco. FIRST EDITION. "The first accurate account of the state of the bones, muscles and lingament in congenital clubfoot" (Norman). Garrison-Morton 4308; *Heirs of Hippocrates* 1107 (1806 edition); Norman 1900. (2)

Estimate: $1,000-1,500

o780

SCHEELE, Carl Wilhelm (1742-1786). *Chemische Abhandlung von der Luft und dem Feuer.* Introduction by Torbern Bergman. Uppsala and Leipzig: M. Swederus for S.L. Crusius, 1777.

8° (167 x 99 mm). Engraved title vignette and one engraved folding plate (lacks half-title, title with marginal repair, laid down.) Later half tree sheep, spine elaborately gilt. *Provenance*: Gustav Broling (19th-century ink stamp on title).

FIRST EDITION OF A FUNDAMENTAL WORK ON CHEMISTRY. The publication of this work was delayed by two years, since the author was waiting for the preface by Torbern Bergman, thus permitting Priestley to publish the first account of the isolation of oxygen. "*On air and fire* contains accounts of the numerous chemical experiments Scheele performed to demonstrate that common air, when freed from 'aerial acid' (carbon dioxide) and water vapor, consists of two gases: 'fire air' (oxygen) which supports combustion, and 'fire air' (nitrogen), which does not... Scheele made numerous other important contributions to chemistry, including the discoveries of chlorine, manganese and a number of acids. He also noted the action of light on chloride of silver and the insolubility of blackened silver chloride in ammonia—discoveries that would later prove significant for photography" (Norman). Dibner *Heralds of Science* 41; Grolier/Horblit 92; Partington II, pp. 205-234; Norman 1905.

Estimate: $8,000-12,000

5781

SCHOEPF, Johann David (1752-1800). *Materia medica Americana potissimum regni vegetabilis.* Erlangen: Johann Jacob Palm, 1787.

8° (197 x 116 mm). (Heavy oil stain through lower portion of text.) Contemporary half sheep (light wear to joints and spine ends). *Provenance*: Johann Thomas Bosch (signature in contemporary hand on front free endpaper).

FIRST EDITION, THE FIRST CATALOGUE OF AMERICAN MEDICAL PLANTS, by a German physician who served with the Hessian troops during the Revolution. Garrison-Morton 1837; Pritzel 8316; Sabin 77756; Stafleu & Cowan TL2 11005; Norman 1909.

Estimate: $2,000-3,000

5782

SCHOTT, Gaspar (1608-1666). *Mechanica hydraulico-pneumatica... accessit experimentum novum Magdeburgicum, quo vacuum alii stabilire, alij evertere conantur.* Würzburg: Heirs of Johann Gottfried Schönwetter, 1657.

4° (204 x 165 mm). Engraved additional title (dated 1658) and 46 engraved plates (light browning, light marginal dampstaining, minor worming to first few leaves.) Contemporary vellum with overlapping edges (some soiling to upper cover).

FIRST EDITION. The appendix to Schott's work contains the first published report of Guericke's experiments with the vacuum pump. Guericke did not publish his own account until 1672. BM/STC *German* (17th-c.) S1246; Norman 1910.

Estimate: $2,000-3,000

5783

SCHOTT, Gaspar (1608-1666). *Technica curiosa, sive mirabilia artis, libris XII comprehensa.* Würzburg: Jobst Hertz for Johann Andreas Endter and the heirs of Wolfgang the younger, 1664.

4° (203 x 160 mm). Title printed in red and black and engraved portrait of Schott on verso, engraved coat-of-arms, engraved additional title and 60 engraved plates, some folding (endpapers renewed.) Contemporary blind-stamped vellum, spines ink lettered.

FIRST EDITION. "Contains descriptions of the aerostatic experiments of Guericke and Boyle, perpetual motion machines, diving bell, chronometer, barometer, etc. etc." (Duveen). BM/STC *German* (17th-c.) S1255; Duveen p. 537; Norman 1911.

(2)

Estimate: $3,000-4,000

5784

SCOT, Reginald (1538?-1599). *The discoverie of witchcraft, wherein the lewde dealing of witches and witchmongers is notably detected ...* [London: William Broome], 1584.

4° (179 x 132 mm). 4 full-page woodcut engravings; woodcut text illustrations (titlepage browned). Full crimson crushed morocco, gilt-ruled, inner gilt-dentelles, gilt spine, gilt edges, by Riviere & Son. *Provenance*: Seth Sprague Terry (leather book label).

FIRST EDITION OF "AN EXHAUSTIVE ENCYCLOPAEDIA OF CONTEMPORARY BELIEFS ABOUT WITCHCRAFT, SPIRITS, ALCHEMY, MAGIC AND LEGERDEMAIN" (DNB). Scot rejected contemporary beliefs in witchcraft as being unsupportable either by reason or by religion. His work stirred a great deal of interest, both supportive and condemnatory. James I, on his accession to the throne of England, ordered that all copies be burnt. STC 21864; Norman 1915.

Estimate: $2,000-2,500

○785

SCOT, Reginald (ca. 1538-1599). *Ondecking van Tovery.* Translated from English into Dutch by Thomas Basson (1555-1613). - Jacques DU CLERCQ. *Historie vande Tovenaers, ghenaemt Vaudoisen, t'Atrecht omgebracht.* Translated from French into Dutch. - Louis SERVIN. *Extract uyt t'Pleydoye, daer in ghehandelt wert van de proef vant waeter.* Translated from Latin into Dutch. All texts edited by Thomas Basson. Leiden: Thomas Basson, 1609.

3 parts in one volume, 8° (148 x 97 mm). (Some minor browning.) Contemporary vellum. *Provenance*: D.F. Schunleer (bookplate), who formed one of the first collections of Dutch popular literature.

FIRST EDITION IN DUTCH of Scot's *Discovery of Witchcraft* (first published 1584, see lot 784), and the second appearance of Scot's work in print. Servin's text describes a trial of witches, in which guilt was determined using the water test. Norman 1918.

Estimate: $800-1,200

○786

SCOT, Reginald (1538?-1599). *Scot's discovery of witchcraft: proving the common opinions of witches contracting with divels, spirits or familiars ... to be but imaginary erroneous conceptions and novelties.* London: R.C. for Giles Calvert, 1651.

4° (177 x 136 mm). Woodcut text illustrations (some browning and soiling throughout, small hole on Z2 touching a few words, small tear on Ss2 just touching text). 19th-century calf gilt, gilt edges (broken). *Provenance*: Fitz-James Watt (bookplate).

Second edition. Despite James I ordering the destruction of all copies of this work deriding superstitious beliefs in witchcraft, the work survived and was frequently reprinted. Wing S-943; Norman 1916.

Estimate: $1,000-1,500

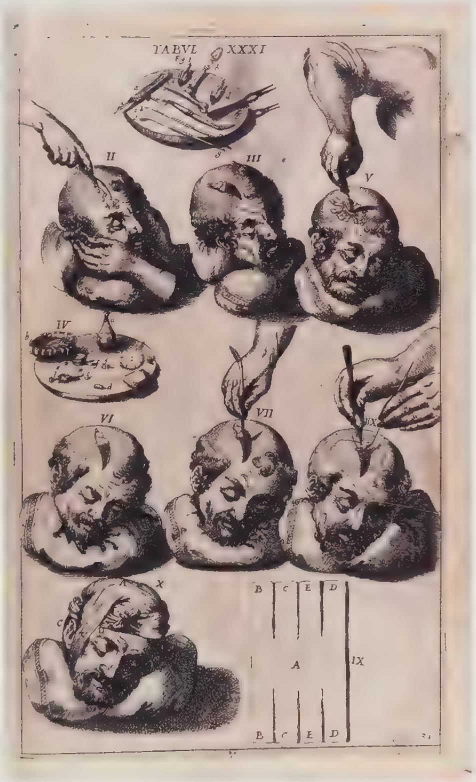
○787

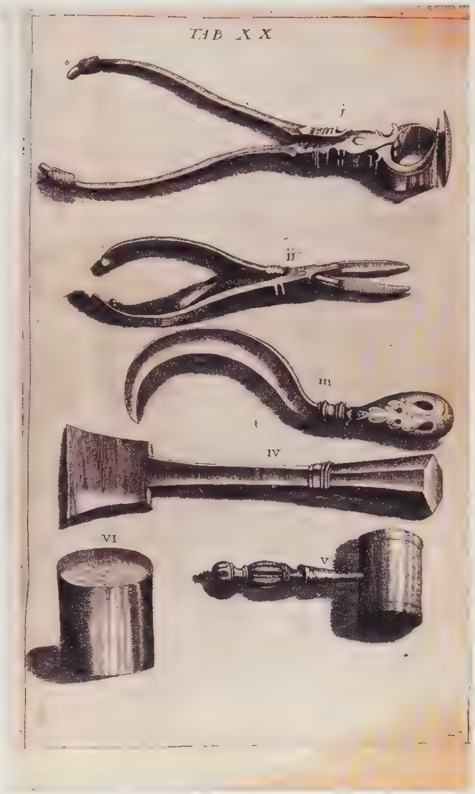
SCOT, Reginald (1538?-1599). *The discovery of witchcraft: proving that the compacts and contracts of witches with devils and all infernal spirits or familiars, are but erroneous novelties and imaginery conceptions.* London: Andrew Clark for Cotes, 1665.

2° (273 x 179 mm). Text woodcuts (occasional light staining and spotting to text). 17th-century blind ruled sheep, red leather spine label (top and base of spine repaired).

Third edition, Cotes version of imprint. Including nine new chapters by another anonymous author, and also an anonymous second book added to Scot's first book, *A discourse concerning the nature and substance of devils and spirits*, added "in this third impression, as succedaneous to the first, and conducing to the compleating of the whole work." Wing S-945A; Norman 1917.

Estimate: $800-1,000





5788

SCULTETES, Johannes (1595-1645). Χειροπλοθηκη, *seu armamentarium chirurgicum*. Ulm: Balthasar Kühnen, 1655.

2° (358 x 222 mm). Title in red and black with printer's woodcut vignette, text in double column, errata statement on last leaf, 43 numbered engraved plates, woodcut tailpieces and initials. (Title reinforced at gutter, foxed, and with library inkstamps as below, plates 4-22, 25-26 and 29-30 on later guards, plate 13 torn along guard not touching image, 5-inch clean tear to plate 1, plate 24 extended at fore-margin, plates 15-16 slightly shorter, 4 plates with platemarks shaved, occasional foxing, 2 marginal repaired tears to fol. a6). 17th or 18th-century half vellum, later cloth on covers.

Provenance: a few contemporary ms. corrections to text; occasional 18th-century marginalia; "S" (early inkstamp); "Kongl. Chirurg. Academie" (18th-century inkstamp); "Duplum B.U.H."(inkstamp); Medical Society of the County of Kings and Academy of Medicine of Brooklyn (inkstamp).

RARE FIRST EDITION of the most popular surgical text of the 17th century. Johannes Schultes, city physican of Ulm and one of the leading German surgeons of his day, invented many new surgical devices and bandages. This comprehensive catalogue of all known surgical instruments and procedures of the period was published after his death by his nephew Johannes Schultes. 22 of the 43 engravings illustrate surgical instruments; the remainder depict in great detail a variety of surgical procedures, including methods of bandaging and splinting, reduction of dislocations, passage of sounds, amputations, brain surgery and neurosurgery, all described in detail in the text, which includes 100 case reports. The book proved extremely useful to practicing surgeons and was frequently reprinted during the next few decades and translated into Dutch, English, French and German. The later editions were however all printed in quarto or octavo formats, and this first edition is thus the only one to contain the original folio engravings.

BM/STC 17th century S1741; Garrison-Morton 5571; *Heirs of Hippocrates* 466; NLM/Krivatsy 10746; Norman 1912.

Estimate: $7,000-10,000

○789

SENAC, Jean Baptiste (1693-1770). *Traité de la structure du coeur, de son action, et de ses maladies.* Paris: Briasson, 1749.

2 volumes, 4° (255 x 191 mm). 17 engraved folding plates (plates 4 and 5 trimmed close.) Contemporary speckled calf, spines elaborately gilt.

FIRST EDITION, with the cancel title-leaves in both volumes, replacing the imprint of Jacques Vincent with that of Briasson. "Senac's valuable treatise on the heart added much to the knowledge of the anatomy and diseases of that organ; he mentioned the leucocytes, which he considered to belong to the chyle, and he described pericarditis. Senac was the first to use quinine for palpitation" (Garrison-Morton). Garrison-Morton 2733; *Heirs of Hippocrates* 823; Osler 3960; Norman 1929.

(2)

Estimate: $2,000-3,000

○790

SEVERINO, Marco Aurelio (1580-1656). *De recondita abscessuum natura.* Naples: Ottavio Beltrano, 1632.

4° (192 x 125 mm). Engraved title, engraved plate and 12 full-page engravings in text (some marginal repairs.) Modern vellum.

FIRST EDITION. "The first textbook of surgical pathology. It treats of all kinds of swelling under the 'abscess' and describes neoplasms of the genital organs and sarcomata of bones. Tumours of the breast are classified into four groups, the section devoted to them being one of the most important in the book. This was also the first book to include illustrations of lesions with the text" (Garrison-Morton). Garrison-Morton 2273; NLM/Krivatsy 11055; Norman 1932.

Estimate: $800-1,200

○791

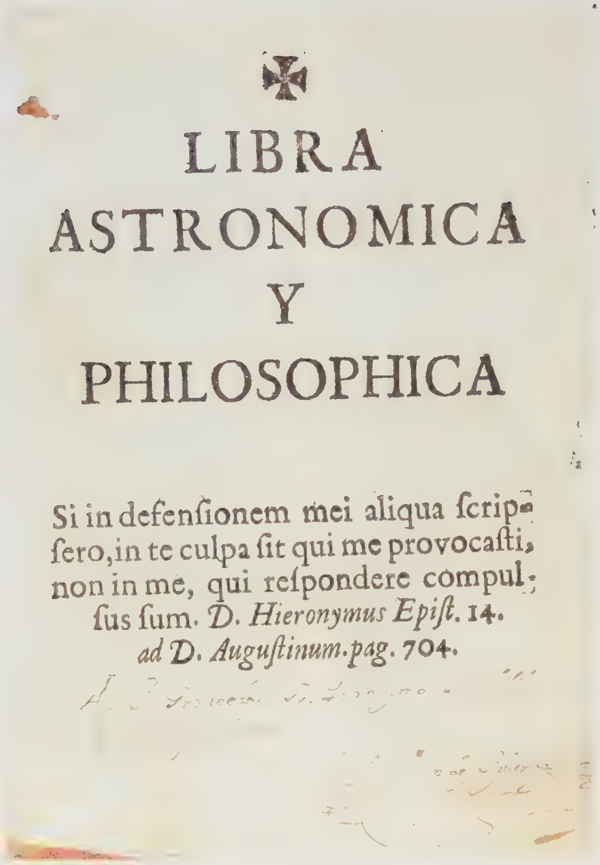
SHIPPEN, William, Jr. (1736-1806). *Dissertatio anatomica-media, de placentae cum utero nexo.* Edinburgh: Hamilton, Balfour and Neill, 1761.

8° (185 x 115 mm). Modern brown morocco, gilt spine. *Provenance*: Notes of an unidentified early owner on several pages; Faculty of Maryland Medical & Chirurgical Library (oval stamp on title and last page).

FIRST EDITION, "ONE OF THE GREAT RARITIES OF AMERICAN OBSTETRICS," constituting Shippen's doctoral thesis. He "gave the first lectures on midwifery in the United States and established the first American hospital for its teaching. His medical thesis on the connection of the placenta with the uterus is apparently his only publication; it is one of the great rarities of American obstetrics" (Norman). VERY RARE: no copy has appeared at auction since at least 1979. Norman 1940.

Shippen, from a prominent Philadelphia family, attended Princeton and apprenticed with his father, a well-known physician, before studying in London and Edinburgh, where he came into contact with William Hunter and Colin Mackenzie. Shippen's first medical lectures were given in 1762 in the Philadelphia State House, but his use of dissection "aroused the animosity of the populace, his dissecting rooms were mobbed on several occasions, and once he narrowly escaped with his life" (DAB). In 1765 he became professor of anatomy and surgery; during the Revolution he played a very significant role, serving in various capacities, ultimately as chief medical officer of the Continental Army. He later taught anatomy, surgery and midwifery at the University of Pennsylvania; Norman 1940.

Estimate: $2,500-3,500



LIBRA
ASTRONOMICA
Y
PHILOSOPHICA

Si in defenſionem mei aliqua ſcripſero, in te culpa ſit qui me provocaſti, non in me, qui reſpondere compulſus ſum. *D. Hieronymus Epiſt.* 14. *ad D. Auguſtinum.pag.* 704.

5792

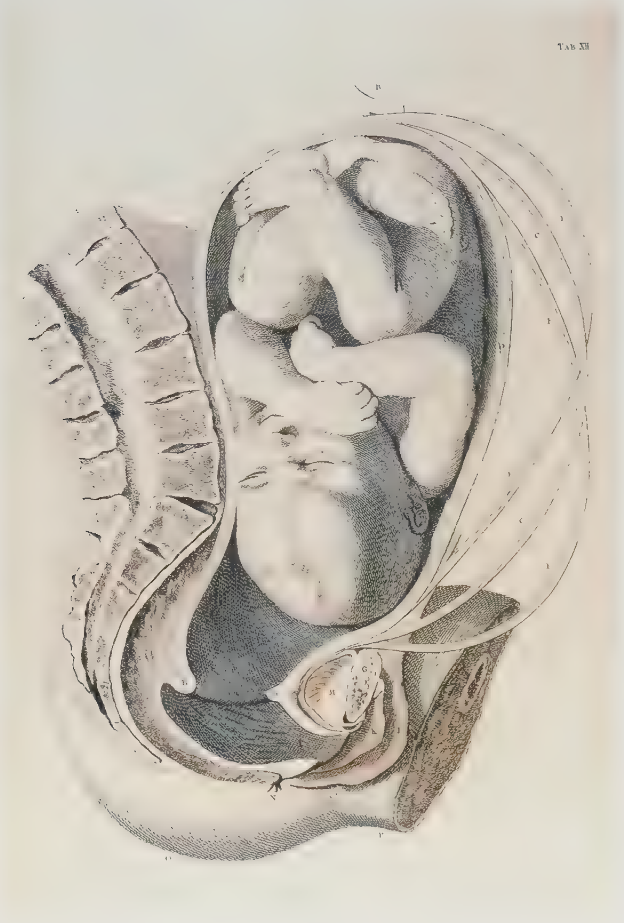
SIGÜENZA Y GÓNGORA, Carlos de (1645-1700). *Libra astronomica, y philosophica.* Mexico City: heirs of the widow of Bernardo Calderon, 1690.

4° (180 x 132 mm). Half-title, 17 woodcut diagrams in text (including a few repeats), woodcut initials, tailpieces and device on title, type ornament headpieces. (Margins trimmed unevenly causing loss to shoulder notes in preliminary matter, to headlines of first few quires, and to first lines of text in 4 leaves, fore-edge of first 8 leaves gnawed affecting one shoulder note, lower margin of Aa2 [final leaf] extended, worming to gutter margins of second half, some staining to lower blank corners.) Contemporary limp vellum, manuscript title lettering on spine, two pairs of original leather ties (one tie defective, 2 small tears at tail of spine, very minor worming to upper cover).

Provenance: Geronimo Mendibil (author's presentation inscription, "Al Sr. proveedor D. Geronymo Mendibil", on half-title); Vera [Cruz?], Jesuit College (17th or 18th-century inscription on title, cropped); unidentified owner (Swann Galleries, New York, 17 November 1988, lot 197).

FIRST EDITION, PRESENTATION COPY. The ex-Jesuit Sigüenza y Góngora, royal cosmographer to the Spanish king and professor of mathematics and astrology at the University of Mexico for over 20 years, was a gifted scholar, renowned for his learning and for his private library, said to be the best in New Spain. This short treatise was the last of several pamphlets exchanged between Sigüenza and the Jesuit missionary Father Eusebio Kino in a controversy over Sigüenza's scientific explanation of comets. It is "a short book of great significance for its sound mathematical background, anti-Aristotelian outlook, and familiarity with modern authors: Copernicus, Galileo, Descartes, Kepler, and Tycho Brahe" (DSB). The book is ONE OF THE EARLIEST SCIENTIFIC BOOKS WRITTEN BY A NATIVE-BORN LATIN AMERICAN AND PUBLISHED IN THE AMERICAS, and it is quite rare: the only other copy to be sold at auction in the past 25 years was the Honeyman copy, rebound in modern calf. Palau 312974; Sabin 80976; Norman 1944.

Estimate: $5,000-7,000



794

○793

SMELLIE, William (1697-1763). *A Treatise on the Theory and Practice of Midwifery.* London: D. Wilson, 1752.

8º (192 x 112 mm). Contemporary calf (rebacked). *Provenance*: John Cook, M.D. (contemporary bookplate); Lemuel Cook; William H. Williams (signatures on preliminary blanks).

FIRST EDITION. "Smellie contributed more to the fundamentals of obstetrics than virtually any individual. In his *Treatise* he described more accurately than any previous writer the mechanism of parturition, stressing the importance of exact measurement of the pelvis" (Garrison-Morton). Garrison-Morton 6154; Grolier *Medicine* 43A; *Heirs of Hippocrates* 825; NLM/Blake, p.421; Waller 9013; Norman 1954.

Estimate: $800-1,200

○794

SMELLIE, William (1697-1763). *A Sett of Anatomical Tables, with Explanations, and an Abridgement, of the Practice of Midwifery.* London: D. Wilson, 1754.

2º (536 x 365 mm). 39 engraved plates by Grignion after Jan van Rymsdyk and Pieter Camper (light browning.) Contemporary calf (rebacked, some wear to edges). *Provenance*: Thomas Howard (signature on front paste-down).

FIRST EDITION, rare, presumably issued in only 100 copies. "Smellie was the leading forceps practitioner in London, and several of the plates illustrate the use of this instrument in various presentations of the fetus. These engravings are the first accurate anatomical illustrations of the fetus in utero" (Norman). Garrison-Morton 6154.1; Grolier *Medicine* 43B; *Heirs of Hippocrates* 826; NLM/Blake, p.420; Russell 753; Waller 9012; Norman 1955.

Estimate: $4,000-6,000

5795

SNEL, Willebrord (1580-1626). *Eratosthenes batavus, de terrae ambitus vera quantitate.* Leiden: Jodocus à Colster, 1617.

4° (193 x 139 mm). Full-page engraving showing the triangulation of Holland on p. 168, numerous woodcut diagrams in text. Contemporary blind-ruled Dutch vellum (a few very minor marginal defects).

FIRST EDITION OF SNEL'S FUNDAMENTAL WORK IN THE SCIENCE OF GEODESY. In this work Snel laid down the principles of a new method for determining the length of the arc of the meridian by triangulation. "In 1615 he became deeply involved in the determination of the length of the meridian, selecting for this work the method of triangulation, first proposed by Gemma Frisius in 1533 and also used by Tycho. Snel developed it to such an extent that he may rightfully be called the father of triangulation. Starting with his house ... he used the spires of town churches as points of reference. Thus, through a net of triangles, he computed the distance from Alkmaar to Bergen-op-Zoom (around 130 kilometers). The two towns lie on approximately the same meridian. Snel used the distance from Leiden to Zoeterwoude (about 5 kilometers) as a baseline. His instruments were made by Blaeu" (DSB). From the mean of these two measurements Snel calculated the length of a degree to be 352,347 feet, a more accurate reckoning than any previous attempt. Snel also solved the so-called recession problem for three points, and the problem is often named after him. The title of this work is a tribute to the Greek mathematician Eratosthenes, who was famous for his measurement of the circumference of the earth. VERY FINE COPY. Norman 1963.

Estimate: $3,000-4,000

5796

SNEL, Willebrord (1580-1626). *Tiphys batavus, sive histiodromice, de navium cursibus, et re navali.* Leiden: Elzevier, 1624.

4° (194 x 150 mm). 3 full-page engravings (the chart slightly shaved), diagrams in text. (Title-page slightly soiled.) Contemporary calf (rebacked preserving original backstrip, dried and rubbed); cloth folding case.

FIRST EDITION. Named after the pilot of the mythical ship *Argo*, Snel's navigational treatise was mainly a study and tabulation of Pedro Nuñez's "rhumb lines," which Snel named "loxodromes." Pedro Nuñez Salaciense (1502-1578) made a significant discovery based on on observations reported to him in 1533 by Admiral Martim Afonso de Sousa. They related to rhumb line sailing and to great circle sailing. He demonstrated for the first time the spiral nature of these lines, which denote the quarters of the wind on navigational charts. Snel's "consideration of a small spherical triangle bounded by a loxodrome, a parallel, and a meridian circle as a plane right triangle foreshadows the differential triangle of Pascal and later mathematicians" (DSB). Willems 224; Norman 1964.

Estimate: $800-1,200

5797

SÖMMERRING, Samuel Thomas (1755-1830). *De basi encephali et originibus nervorum cranio egredientium.* Göttingen: Widow of Abraham Vandenhoeck, 1778. 4° (252 x 203 mm., uncut). 4 engraved folding plates. Contemporary blue wrappers (rebacked); modern leather backed folding case. FIRST EDITION. "The first accurate enumeration of the 12 cranial nerves... Sömmerring is notable for his accuracy in anatomical illustration. This was his thesis" (Garrison-Morton). Garrison-Morton 1383; Waller 9044; Norman 1972 — *Über das Organ der Seele.* Königsberg: Nicolovius, 1796. 4° (253 x 215 mm). 3 engraved folding plates (some browning and staining at end.) Contemporary boards (light wear to spine and edges). *Provenance:* W.H.G. Renner; M. Kirvesse (signatures on front free endpaper). FIRST EDITION. Sömmerring was a believer in the ancient notion that man's soul was housed in the cerebrospinal fluid. Waller 9052; Norman 1973.

(2)

Estimate: $1,200-1,800

5798

SPALLANZANI, Lazzaro (1729-1799). *Viaggi alle due Sicilie e in alcune parti dell' Appennino.* [Vol. VI: *Opuscoli sopra diversi animali, che servono di appendice ai viaggi alle due Sicilie.*] Pavia: Baldassare Comini, 1792-1797.

8° (205 x 130 mm). 11 engraved folding plates (light worming at beginning and end of some volumes.) Contemporary speckled boards.

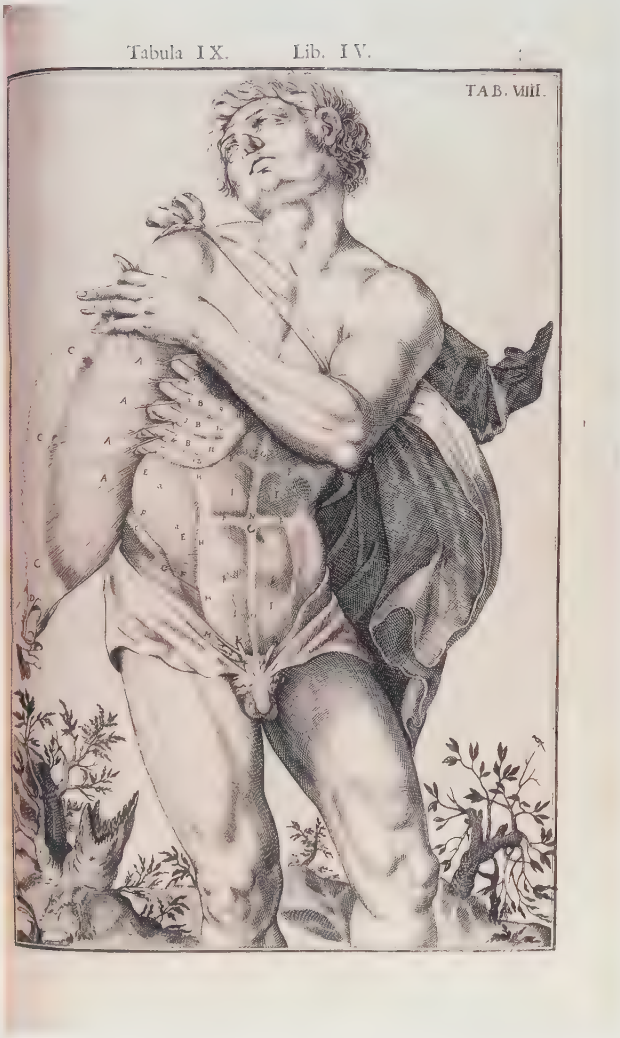
FIRST EDITION. An account of Spallanzani's journey in 1788 to Southern Italy to investigate the volcanic activity of Vesuvius, Stromboli, Vulcano and Etna. He measured the flow rate of the lava from Vesuvius and studied boiling lava in the crater of Etna. From a cavern near Stromboli he noted that gas explosions forced up the red-hot lava and ejected massive rocks, an observation fundamental to volcanology. The first five volumes were published 1792, the sixth volume on animals was added in 1797. Ward & Carozzi 2096; Norman 1984. (6)

Estimate: $2,000-3,000

5799

SPALLANZANI, Lazzaro (1729-1799). *Prodromo di un' opera da imprimersi sopra le riproduzioni animali.* Modena: Giovanni Montanari, 1768. 8° (221 x 159 mm., uncut). Contemporary plain blue wrappers (some chipping to spine), FIRST EDITION. "The results of Spallanzani's studies of the regenerative capabilities of the earthworm, salamander, land snail and other similar species" (Norman). Garrison-Morton 101; Norman 1979. — *De' fenomeni della circolazione osservata nel giro universale de' vasi...* Modena: Società Tipografica, 1773. 8° (222 x 150 mm., uncut). Contemporary plain wrappers; cloth folding case. FIRST EDITION. Spallanzani describes "his experiments on the circulation of the blood and the action of the heart" (*Heirs of Hippocrates*). *Heirs of Hippocrates* 983; Norman 1980. — *Opuscoli di fisica animale, e vegetabile.* Modena: Società Tipografica, 1776. 2 volumes, 8°, (210 x 138 mm). 6 engraved folding plates. Contemporary vellum, spines gilt lettered. *Provenance*: Filippo Cestari (contemporary ownership inscription on title). FIRST EDITION. A series of essays, reflecting the long controversy with John Tuberville Needham and Comte de Buffon, in which Spallanzani rejected the theory of spontaneous generation. Garrison-Morton 102; *Heirs of Hippocrates* 984; Norman 1981. — "Fecondazione artificiale." In: *Prodromo della nuova enciclopedia Italiana.* Edited by Alessandro Zorzi. Pp. 129-134. Siena: Vincenzo Pazzini Carli and Sons, and Luigi and Benedetto Bindi, 1779. 4° (254 x 191 mm). Engraved folding plates and folding tables (lacks the engraved portrait frontispiece.) Modern half morocco. First appearance. Spallanzani's first paper on artificial insemination. Norman 1982. — *Dissertazioni di fisica animale, e vegetabile.* Modena: Società Tipografica, 1780. 2 volumes, 8° (208 x 133 mm). 3 engraved folding plates. Contemporary half sheep. *Provenance:* "Bibliotheca S. Bernardini Salutiarum" (library stamp on both titles). FIRST EDITION. The results of Spallanzani's experiments on the physiology of the digestive systems. Garrison-Morton 981; Norman 1983. (7)

Estimate: $2,000-3,000



5800

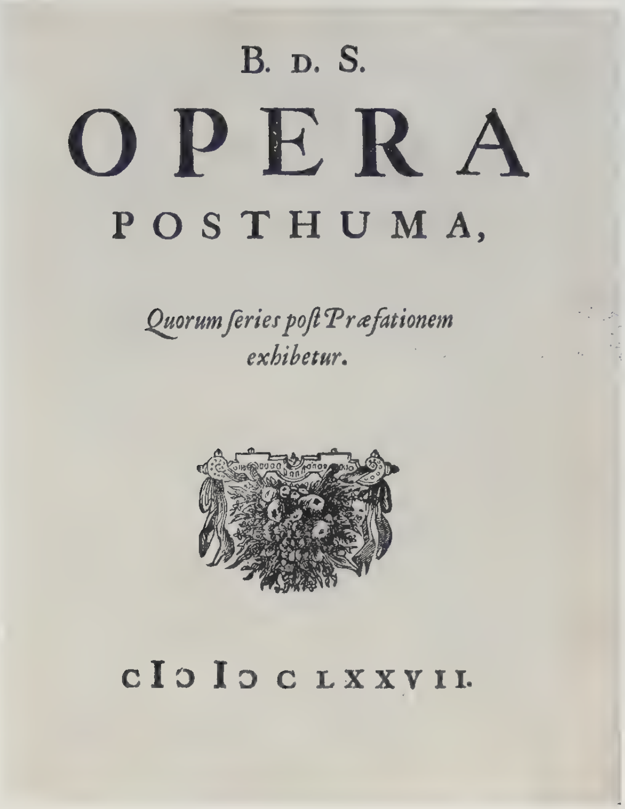
SPIEGEL, Adriaan van de (1578-1625). *Opera quae extant omnia.* Edited by Johannes vander Linden. Amsterdam: Johannes Blaeu, 1645.

2 volumes in one, 2° (425 x 271 mm). Engraved title, engraved portrait of the author by Jeremiah Falck and 117 engraved plates (including one half page illustration in text. 87 of the plates had originally been engraved for Casserio by Joseph Maurer, another 20 were engraved by Valesio and Fialetti for Daniel Bucretius). Modern panelled calf antique.

Provenance: D. Joachim d'Andrée (dedicatee, presentation by the editor on half-title); J. Linloch (signature on half-title).

FIRST COLLECTED EDITION, PRESENTATION COPY, with a 10-line inscription by Johannes vander Linden to D. Joachim d'Andrée. Most of the fine plates derive from those which Julius Casserius (who preceded Spiegel in the chair of anatomy at Padua) had had prepared by the German draftsman/engraver Joseph Maurer to illustrate his unpublished *Theatrum anatomicum.* Other plates were prepared by Valesio and Fialetti. "Casserius's plates mark a new epoch in the history of anatomic representation, owing to the correctness of their anatomic drawing, their tasteful arrangement, and the beauty of their technical execution" (Choulant). In addition to five of Spiegel's works, this edition contain's: Gaspare Aselli, *De lactibus*; Johannes de Waal, *Epistolae duae, de motu chyli & sanguinis*; Johannes vander Linden, *De monstrosis vermibus, observatio rara*; William Harvey, *De motu cordis.* Choulant p. 226-228; Garrison-Morton 61.2; *Heirs of Hippocrates* 415; Keynes (Harvey) 5; NLM/Krivatsy 11294; Waller 9124; Norman 1987.

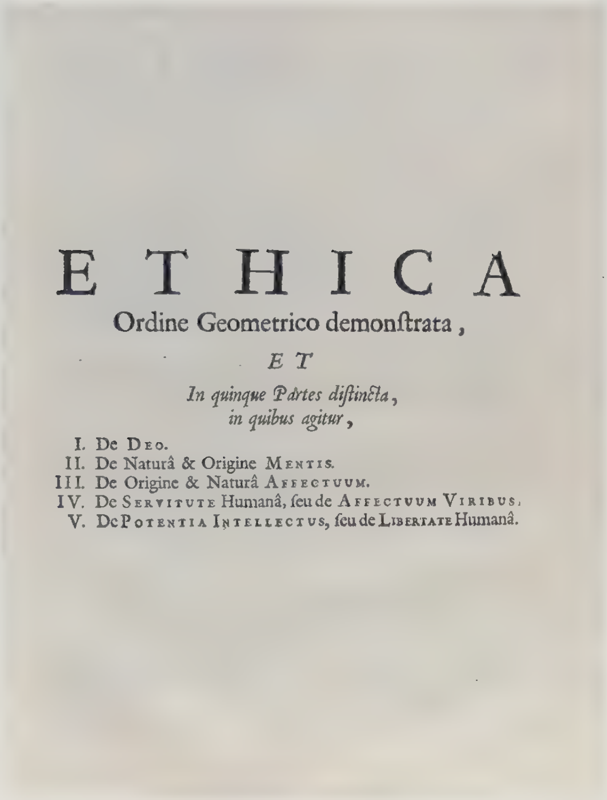
Estimate: $7,000-10,000



B. D. S.
OPERA
POSTHUMA,

Quorum ſeries poſt Præfationem exhibetur.

CIↃ IↃ C LXXVII.



ETHICA
Ordine Geometrico demonſtrata,
ET
In quinque Partes diſtincta, in quibus agitur,

I. De DEO.
II. De Naturâ & Origine MENTIS.
III. De Origine & Naturâ AFFECTUUM.
IV. De SERVITUTE Humanâ, ſeu de AFFECTUUM VIRIBUS.
V. De POTENTIA INTELLECTUS, ſeu de LIBERTATE Humanâ.

801

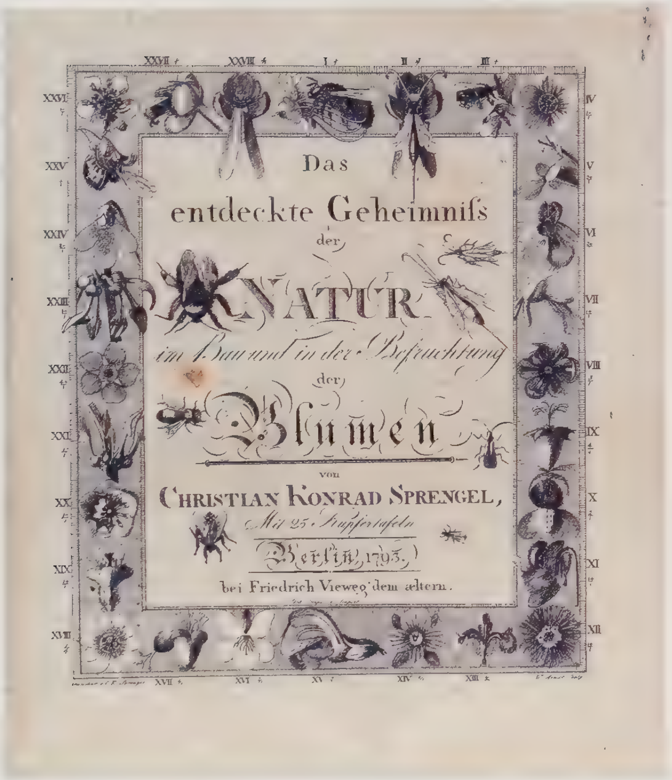
SPINOZA, Baruch (later Benedictus de, 1632-77). *Opera posthuma.* [Edited by Jarrig Jellis, the long preface translated from Dutch into Latin by Lodewijk Meijer. Amsterdam: Jan Rieuwertsz], 1677.

Chancery 4° (201 x 155 mm). Collation: *-*****^{4} (title, preface, table of contents, divisional title to *Ethica*), A-Z^4 Aa-Kk^4 (*Ethica*); Ll-Zz^4 Aaa-Ccc^4 (*Politica* and *De emendatione intellectus*); Ddd-Zzz^4 Aaaa-Mmmm^4 (*Epistolae et ad eas responsiones*, index, divisional title and preface to *Compendium*), A-P^4 (*Compendium grammatices linguae Hebraeae*, table of contents index, errata). Roman, italic and hebrew type. Woodcut title vignette, initials, illustrations. Contemporary Dutch vellum. *Provenance*: John Hay, Marquis of Tweeddale (18th-century engraved bookplate, the 13-shilling purchase inscription presumably his).

FIRST EDITION of Spinoza's most influential philosophical work, *Ethics*, the modern classic of pantheism. God is the immanent principle of the universe, undetermined or infinitely self-determined. Spinoza's thinking combined religion and science. Without it Herder and German Romanticism, Schelling and Hegel are unthinkable; also, it is only a small step from Spinoza's *Deus sive Natura* concept to atheism, and Benedictus was no more tolerated among Christians than Baruch among the Sephardic Jews, even in Holland.

Spinoza's correspondence among the posthumous works is particularly interesting, providing easier access to his philosophy, as well as dealing with optics, the telescope, and his views on Descartes. The least controversial of his writings, a simple Hebrew grammar composed at the request of friends, may have inspired scriptural studies among a wider audience than his metaphysical readership. This VERY FINE COPY found its way to English aristocratic shelves at an early date. Van der Linde 22; Norman 1988.

Estimate: $4,000-6,000



Das
entdeckte Geheimniſs
der
NATUR
im Bau und in der Befruchtung
der
Blumen
von
CHRISTIAN KONRAD SPRENGEL,
Mit 25 Kupfertafeln
Berlin, 1793,
bei Friedrich Vieweg dem ælteren.

803

›802

SPRAT, Thomas (1635-1713). *The History of the Royal-Society of London.* London: T.R. for J. Martyn and J. Allestry, 1667.

4° (197 x 150 mm). Folding engraved frontispiece by Wenceslaus Hollar (1607-1677) after John Evelyn (1620-1676), 2 folding engraved plates. Contemporary English calf gilt (worn, lower cover loose). *Provenance*: early press-mark on pasteboard inside front cover; William Rees-Mogg (signature in pencil on front free endpaper, dated December 1958).

FIRST EDITION. "An eloquently written but historically unreliable account of the nature, organization, work and aims of the recently-founded Royal Society. The work represents the Royal Society's attempt to give itself a genuinely British origin, exaggerating the influence of Francis Bacon and suppressing the importance of contributions from Continental scientists like Haak and Mersenne" (Norman). It contains two contributions by Robert Hooke and one by William Petty. A CRISP CLEAN COPY. Duveen, p. 558; Keynes *Evelyn* 178; Keynes *Hooke* 28; Keynes *Petty* 15; NLM/Krivatsy 11326; Wing S-5032; Norman 1989.

Estimate: $600-800

›803

SPRENGEL, Christian Konrad (1750-1816). *Das entdeckte Geheimniss der Natur im Bau und in der Befruchtung der Blumen.* Berlin: Friedrich Vieweg, 1793.

4° (256 x 217 mm). Engraved title and 25 engraved plates (minor staining to some plates.) 19th-century marbled boards (some rubbing to edges).

Provenance: A. Stal (signature on front free endpaper); A. Weilbach (signature on front pastedown); J.M.W. Baumann (bookplate).

FIRST EDITION OF THE EARLIEST STUDY ON POLLINATION. Sprengel discusses the relationship between pollination and the insect fertilization of flowers. Although Sprengel's work was generally neglected (he eventually gave up his botanical pursuits), it influenced several of Darwin's works. Dibner *Heralds of Science* 30; Nissen *BBI* 1883; Pritzel 8856; Sparrow *Milestones of Science* 184; Norman 1990.

Estimate: $3,000-4,000

ɔ804

STAHL, Georg Ernst (1660-1734). *Theoria medica vera.* Halle: Literis Orphanotrophei, 1708.

4° (214 x 172 mm). Engraved portrait frontispiece, title printed in red and black. Contemporary vellum, spine ink-lettered. *Provenance*: John S. Ely, donated in 1908 to: Yale University Library (bookplate and withdrawal stamp on front pastedown).

FIRST EDITION. In opposition to the iatrochemical and iatrophysical theories of his day which took a strictly mechanical view of life, Stahl was the last major supporter of the Greek doctrine of the physiological soul. He believed that the body was composed of passive or "dead" substance, "which became animated by the soul during life, returning to passivity or 'death' on the departure of the soul from the body" (Garrison-Morton). Garrison-Morton 69; Osler 4014; Waller 9184; Norman 2004.

Estimate: $800-1,200

ɔ805

STAHL, Georg Ernst (1660-1734). *Fundamenta chymiae dogmaticae & experimentalis...* Nurmberg: J.E. Adelbulner for W. Mauritz, 1723.

4° (206 x 160 mm). Title printed in red and black. Contemporary vellum (upper spine end with calf repair).

FIRST EDITION. Influenced by Becher, who had stated air, earth, and water to be the three elementary principles, Stahl was the originator of the phlogiston theory, which dominated chemistry until the end of the 18th-century. Duveen, p. 560; Partington II, pp. 662-678; Norman 2005.

Estimate: $1,000-1,500

ɔ806

STENSEN, Niels (1638-1686). *Observationes anatomicae, quibus varia oris, oculorum, & narium vasa describuntur.* Leiden: Jacques Chouët, 1662.

12° (123 x 66 mm). 4 parts in one, continuously paginated, section titles to parts 1-3 (part 4 being the appendix), 3 folding engraved plates of anatomical details, woodcut title vignette, initials and headpieces. (Small marginal tear to *3, first few leaves a trifle soiled, upper margin of first folding plate slightly discolored and frayed.) Modern morocco antique. *Provenance*: Wellcome Library (inkstamp and withdrawal stamp).

FIRST EDITION of Stensen's report of his important discoveries concerning the glandular system. Following the discoveries of Aselli, the glands and lymph vessels had become an exciting subject of scientific investigation. In 1660, while dissecting the head of a sheep, Stensen had accidentally discovered the the excretory duct of the parotid gland, the principal source of saliva for the oral cavity. Credit for the discovery was falsely claimed by Gerhard Blaes, his teacher at the time, prompting a long quarrel between the two and, more importantly, spurring Stensen to pursue his investigation of the glands. His initial discovery led him quickly to a basic understanding of the entire glandular lymphatic system. "Going against received opinion, which assigned to the glands such trivial functions as filling spaces and absorbing excess fluids, Stensen stated that the true purpose of the glands was to secrete fluid" (Norman). Conversely, his discovery "led Stensen to consider every fluid in the body as a glandular secretion. He then found a series of glands furnishing fluids to each of the body cavities... In the course of this basic research Stensen presented in his Leiden dissertation new discoveries of glands in the cheeks; beneath the tongue; and in the palate, whose structure of veins, arteries, nerves, and lymph vessels he also described. In his *Observationes anatomicae...* he described the lachrymal apparatus in great detail" (DSB), and was the first to elucidate its function, to facilitate the movement and cleansing of the eyelids. Garrison-Morton 973; *Heirs of Hippocrates* 608; NLM/Krivatsy 11434; Osler 4018; Waller 9226; Norman 2010.

Estimate: $3,000-4,000

807

STENSEN, Niels (1638-1686). *De musculis & glandulis observationem specimen cum epistolis duabus anatomicis.* Copenhagen: Matthias Godicchen, 1664.

4° (193 x 158 mm). Fine additional engraved title of fruits and flowers enclosing four small anatomical figures, woodcut initials. (Occasional light spotting or browning, some staining in quires H and I.) Bound with four other works (see below) in late 18th-century German half vellum and marbled paper over pasteboard, spine title ink-lettered (paper torn in places and rubbed).

Provenance: Johann Friedrich Blumenbach (1752-1840), the founder of scientific anthropology (signature on title-page of first work in this volume); a few 18th-century marginalia in last work; E. F. G. Herbst, by descent to Robert M. Herbst.

FINE ASSOCIATION COPY OF THE FIRST EDITION. In this survey the Danish anatomist enumerates the new discoveries and observations that he made between 1662 and 1664, among them the earwax duct, ducts of the cheek, sublingual glands, and the glandular ducts of the palate and epiglottis. The work above all "shows an abundance of new observations and discoveries concerning the anatomy and physiology of individual muscle... He described the role of the diaphragm and several other muscles during respiration... From [his] research Stensen drew comprehensive conclusions concerning the structure of the muscles: that in each muscle there are arteries, veins, fibers and fibrils, nerves, and membranes; that each muscle fiber ends in a tendon on both sides... and that the contractibility lies in the muscle substance proper [and not in the tendon, as Galen had believed]. He then applied all his findings to the heart and proved its muscle structure... The automatic movement, independent of the will, is shared by the heart with other muscles. The findings were new, and even ten years later [Thomas] Bartholin, in a new edition of his [and his father Caspar's] *Institutiones anatomicae...* did not accept them" (DSB). A duodecimo edition was published the same year in Amsterdam. Garrison-Morton 576; NLM/Krivatsy 11429; Waller 9217.

[*Bound with the following*:]

1) BARTHOLIN, Caspar (1585-1629). *Specimen historiae anatomicae partium corporis humani, ad recentiorum mentem accomodatae, novisque observationibus illustratae.* Copenhagen: Widow of Johann Philipp Bockenhoffer, 1701. 4°. Title printed in red and black, 4 engraved plates. (Some browning, heavy offsetting to plates.) Waller 711.

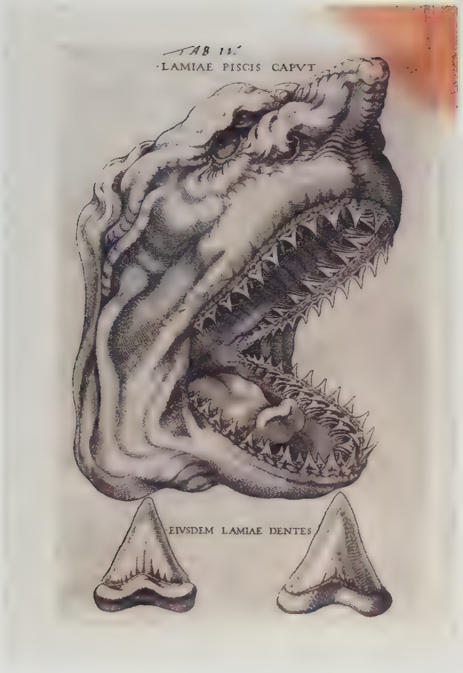
2) VIEUSSENS, Raymond (1641-1715?). *Epistola nova quaedam in corpore humana inventa exhibens... ad D.D. Silvestre D.M.M. scripta.* Leipzig: Thomas Fritsch, 1704. 4°, 8 leaves. Woodcut initials, title device, head- and tailpieces. (Browning). Waller 9959.

3) KRUGER, Barthold (b. 1653). *Anatomicus curiosus* θεοδιδακτοσ, *hoc est methodus secandi cadavera Hippocratica democritaea.* Brunegg: Heinrich Kesler, 1700. 4°. Woodcut skull and bones vignette on title, woodcut initials, letterpress tables. (Slight browning.) NLM/Krivatsy 6497.

4) PAULLI, Simon (1603-1680). *Anatomisch- und Medicinisches Bedencken über ein Königliches Reit-Pferd.* Frankfurt: Daniel Paulli, 1674. 4°. Half-title, errata on verso of last leaf, woodcut initials. (Marginal repair to D2 catching a letter, some soiling and spotting.) A curious work combining comparative anatomy with medical advice for laymen and general reflexions on medicine, by the botanist and physician to the King of Denmark. Steno's *De musculis et glandulis* is mentioned on p. 58. Rare. BM/STC *German 17th-century* P-253; Wellcome IV, p. 318.

An interesting *Sammelband* of late 17th and early 18th-century treatises on human anatomy, probably bound for Blumenbach, a pioneer in comparative anatomy, upon which subject he was the first public lecturer in Germany. Norman 2011.

Estimate: $3,000-4,000



○808

STENSEN, Niels (1638-1686). *De elementorum myologiae specimen, seu musculi descriptio geometrica. Cui accedunt canis carchariae dissectum caput, et dissectus piscis ex canum genere.* Florence: "sub signo Stellae" Press, 1667.

4° (277 x 212 mm). Woodcut Medici arms on title, 3 folding woodcut plates, 4 engraved plates printed on fold-out sheets, a few woodcut diagrams in text, woodcut initials and tailpieces, type-ornament headpieces. (Marginal staining, occasional light foxing, G4 torn and repaired with old tape, woodcut plates with short marginal tears at guards, two with minor tears at folds.) Contemporary maroon morocco, covers panelled with double gilt fillet, spine densely gilt in six compartments, the second gilt lettered, gilt edges (minor rubbing to spine and extremities, corners bruised).

Provenance: a few early manuscript corrections to text; Gustav O. Galletti, Florence (19th-century inkstamp on title); Horace de Landau (bookplate); Robert Honeyman IV (Sotheby's London, Part VII, 19 May 1981, lot 2899).

FIRST EDITION, LARGE-PAPER COPY of Stensen's definitive treatise on the structure of muscles and his first presentation of his revolutionary theory of the formation of fossils. Written during his two-year stay at the court of Grand Duke Ferdinand in Florence and published shortly before his conversion to Catholicism, the first part of the work builds upon the discoveries that Stensen had spelled out in his *De musculis et glandulis*. At the time, the swelling and hardening of muscles during their contraction was still thought to be due to the influx of fluid from the nerves. Stensen showed here that the true cause is the tension of the individual muscle fibers. He "provided clear concepts and a clear-cut terminology of parts of the muscle. Then he characterized the individual muscle fiber and the muscle itself as a paralleliped bordered by six parallelograms" (DSB). This geometrical analysis of muscle structure, which lay the groundwork for the science of muscular mechanics, permitted Stensen to show that muscles do not increase in volume during contraction.

In the second part Stensen presented for the first time his theory of the formation of fossils. Study of the teeth in a shark's head that he had dissected in 1666 had "placed immediately before him the question of the relation of these teeth to the so-called *glossopetra* or tongue-stones, which were common on Malta and were considered *lapides sui generis*. Stensen concluded that they were fossil shark's teeth" (DSB). This discovery led him to develop theories of the formation of fossils and geological structures, enunciated here for the first time, in "THE FIRST OUTLINE OF A SCIENTIFIC THEORY OF THE DEVELOPMENT OF THE EARTH" (Norman). Garrison-Morton 577; *Heirs of Hippocrates* 609; NLM/Krivatsy 11432; Osler 4021; Waller 9223; Norman 2012.

Estimate: $8,000-12,000

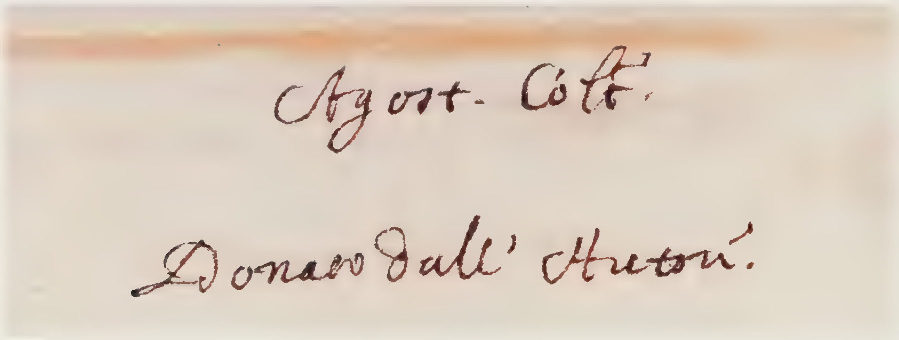
5809

STENSEN, Niels (1638-1686). *De solido intra solidum naturaliter contento dissertationis prodromus.* Florence: "sub signo Stellae" Press, 1669.

4° (248 x 182 mm). Title printed in red and black with engraved armorial vignette, privilege leaf and errata leaf at end, first blank leaf present, woodcut initials and tailpiece, type ornament headpiece, one large folding plate (single sheet bound in as two folding plates) consisting of an engraving with diagrams of crystals and of stratification and with a typographic explanation of the figures. (Marginal tear to A2 catching headline, occasional minor foxing). Original paper boards, title ink-lettered on spine, EDGES UNCUT. Modern citron morocco felt-lined folding case by Sangorski & Sutcliffe.

Provenance: Agostino Coltellino (author's presentation inscription, "Agost. Colt. / Donato dall' Autor," on front free endpaper); a Florentine ecclesiastical library (mostly illegible 18th-century inkstamps on title and on K2v).

PRESENTATION COPY OF THE FIRST EDITION OF STENSEN'S PATH-BREAKING GEOLOGICAL TREATISE, containing the first correct explanations of fossils and of the sedimentary origins of rocks. In the *Prodromus*, Stensen outlined the principles of modern geology: "He explained the true origin of fossils found in the earth as being remains of once living things, and he discriminated between the volcanic, chemical and mechanical modes of the origin of rocks. He was the first clearly to realize that the strata of the earth's crust contain the records of a chronological sequence of events from which the history of the earth can be reconstructed. He attempted to find the principles of stratigraphy" (PMM), and "concluded that the strata were formed by solids settling from water to form a sediment and that such strata must be horizontal, while vertical ones were caused by violent upheavals" (Dibner, *Heralds*). Stensen deduced from this that the variegations in the earth's surface are a visible record of past geologic events, a revolutionary concept at the time. He recognized the effects of erosion, and explained the sources of springs as resulting from fissures opened during the dislocation of strata. His work also records important observations on the structure and manner of formation of crystals, including the first statement of the constancy of interfacial angles of quartz crystals, a fundamental principle of mineralogy. In the last section Stensen applies his theories to Tuscany, attempting a sketch of the region's geologic history. A portion of the folding engraving contains diagrams representing six successive stages in the stratification of the Tuscan surface: "the first attempt ever made to represent geological sections" (PMM). Intended, as its title implies, as the introduction to a larger work, the book "presents only the outline of a discussion, yet almost every sentence or paragraph yields new insights" (DSB).



Agost. Colt.

Donato dall' Autori.

Presentation copies of Stensen's works are of the greatest rarity. THIS IS AN EXCEPTIONALLY FINE COPY OF AN IMPORTANT WORK IN THE HISTORY OF SCIENCE. Dibner *Heralds of Science* 90; Grolier/Horblit 96; PMM 151; Norman 2013.

Estimate: $20,000-30,000

NICOLAI STENONIS

DE SOLIDO INTRA SOLIDVM NATVRALITER CONTENTO DISSERTATIONIS PRODROMVS.

AD

SERENISSIMVM

FERDINANDVM II.

MAGNVM ETRVRIÆ DVCEM.

FLORENTIÆ
Ex Typographia ſub ſigno STELLÆ MDCLXIX.
SVPERIORVM PERMISSV.

810

STEVIN, Simon (1548-1620). *De Beghinselen der Weeghconst -De Weeghdaet Praxis artis Ponderaria -De Beghinselen Elementa des Waterwichts.* Leiden: Franciscus Raphelengius for Christopher Plantin, 1586.

3 works in one volume, 4° (209 x 155 mm). Woodcut printer's device on each title, numerous woodcut diagrams and illustrations in text. (Some minor pale dampstaining and occasional marginal soiling.) Contemporary Dutch vellum over pasteboard.

FIRST EDITIONS. These three works often appear together in one volume and together constitute an important collection of works in the fields of statics and hydrostatics. *De Beghinselen der Weeghconst* is Stevin's chief work on mechanics, and is mainly devoted to statistics. From the evidence it provides, the work establishes Stevin as the first Renaissance author to develop and continue the work of Archimedes. The book contains discussions of the theory of the lever, the theorems of the inclined plane, and the determination of the center of gravity. It also includes the most famous of Stevin's discoveries, the law of the inclined plane, which he demonstrated using the "clootcrans" or wreath of spheres. The third work (the fourth in the volume), *De Beghinseelen des Waterwichts*, is the first systematic treatise on hydrostatics since Archimedes. Stevin gives a simple and immediately comprehensible explanation for the Archimedean principle of displacement. ALL VERY RARE. Dibner, *Heralds of Science* 140; Grolier/Horblit 97; PMM 99 (note); Norman 2014, 2015 and 2016.

[*Bound following:*]

STEVIN, Simon. *De Sterctenbovwing.* Leyden: Franciscus Raphelengius, 1594.

4° (211 x 154 mm). Woodcut printer's device on title, folding woodcut plate, numerous woodcut diagrams in text. (Title lightly soiled, some minor marginal dampstaining and soiling).

FIRST EDITION of Stevin's treatise on the art of fortification. Stevin served as quartermaster-general of the Dutch army and was often consulted by the government of the Netherlands on matters of defense and navigation. Norman 2017.

Estimate: $25,000-35,000

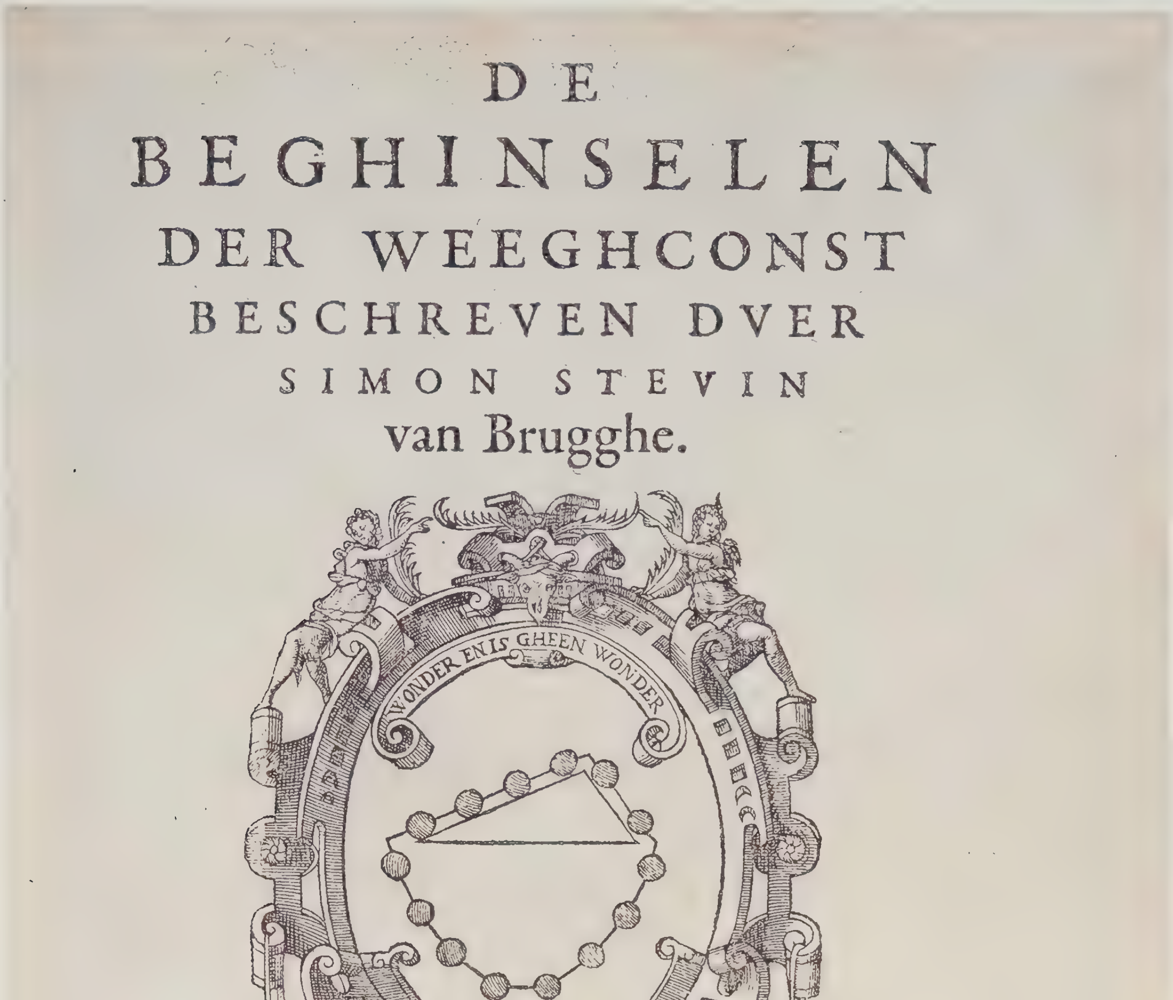
811

STEVIN, Simon (1548-1620). *Castramentatio, dat is legermeting. -Nieuwe maniere van sterctebov, door spilsluysen.* Rotterdam: Jan van Waesberghe, 1617.

2° (305 x 198 mm). Printer's woodcut device on title-pages, allegorical engraving incorporating the arms of Maurice of Nassau, Prince of Orange, folding woodcut diagram, numerous woodcut diagrams and illustrations in text. (Lacks portrait of the Prince of Orange, small gouge penetrating inner margins of gatherings D and E affecting some letters, some minor browning, a few marginal stains.) Modern vellum over boards (boards somewhat bowed).

FIRST EDITION. The first part of this work is devoted to the art of laying out a military camp, or castramentation, with particular regard to the habits and needs of the Prince of Orange. The second part is devoted to the construction of and defensive use of sluices in fortifications. "His treatise was one of the earliest on the subject, and contained the very first explanation of their use for tactical purposes, that is, for flooding the country and thus causing it to become inaccessible to the enemy" (Sarton). Cockle 703; Sarton, "Simon Stevin of Bruges," In: *Isis* 21 (1934), pp. 241-303; Norman 2018.

Estimate: $1,500-2,500



DE
BEGHINSELEN
DER WEEGHCONST
BESCHREVEN DVER
SIMON STEVIN
van Brugghe.

WONDER EN IS GHEEN WONDER
A
V

Tot Leyden,
Inde Druckerye van Chriſtoffel Plantijn,
By Françoys van Raphelinghen.
cIↄ. Iↄ. LXXXVI.

810 (actual size)

812

STUBBS, George (1724-1806). *The Anatomy of the Horse.* London: J. Purser for the author, 1766 [plates watermarked 1798].

Oblong imperial broadsheets (463 x 575 mm). Without the errata leaf at end. 24 finely engraved plates drawn and engraved by Stubbs (first plate laid down, some offsetting to images, soiling and some marginal browning, final plate creased). (Title-page, to the Reader leaf, and final text leaf laid down, some other repairs, marginal browning and soiling.) Later maroon half morocco, gilt-lettered on spine. *Provenance*: Maud Raymond (gift inscription from her father dated 1885 on flyleaf).

FIRST EDITION OF THIS LANDMARK WORK IN THE STUDY OF EQUINE ANATOMY. Using the method devised by Albinus (see lot 241), Stubbs accurately reproduced the skeleton and musculature to produce the first comprehensive study of the anatomy of the horse since Carlo Ruini's *Dell'anatomica, et dell'infirmita del cavallo* (1598). Stubbs prepared his own dissections, keeping each carcass in his studio for up to six or seven weeks. Unable to find engravers willing to prepare his drawings for publication, he taught himself to etch and personally engraved the plates himself. Garrison-Morton 308.1; Mellon, *Books on the Horse and Horsemanship* 57; Nissen ZBI 4027; Norman 2032.

Estimate: $2,000-3,000

813

SWAMMERDAM, Jan (1637-1680). *Tractatus physico-anatomico-medicus de respiratione usque pulmonum.* Leiden: Daniel, Abraham and Adriaan á Gaasbeeck, 1667. 8° (151 x 92 mm). Engraved additional title and woodcut illustrations in text. Contemporary calf (rebacked, old spine laid down). FIRST EDITION, OF SWAMMERDAM'S EARLIEST PUBLISHED WORK. "In it he recorded his discovery that the lungs of newborn infants will float on water if respiration has taken place, an important medico-legal point" (Garrison-Morton). Garrison-Morton 1724; *Heirs of Hippocrates* 602; NLM/Krivatsy 11606; Waller 9385; Norman 2035. — SWAMMERDAM. *Ephemeri vita: Or the Natural History and Anatomy of the Ephemeron, a Fly that Lives but Five Hours.* London: Henry Faithorne and John Kersey, 1681. 4° (191 x 143 mm). 8 illustrations on 5 engraved plates including 2 folding (upper margin of title and running titles croped, affecting text, tiny repair to title page.) Modern calf. *Provenance*: A. Mercer (bookplate). First edition in English. Swammerdam's history of the mayfly. Nissen *ZBI* 4060; Wing S-6233; Norman 2036.

(2)

Estimate: $1,000-1,500

814

SWAMMERDAM, Jan (1637-1680). *Bybel der natuure... of historie der insecten / Biblia naturae, sive historia insectorum...* Edited by Hermann Boerhaave, translated from Latin by Hieronimus David Gaubius. Leiden: Isaak Severinus, Boudewyn vander Aa and Pieter vander Aa, 1737-1738.

2 volumes, 2° (369 x 236 mm). Titles printed in red and black, engraved title vignettes and 53 engraved plates, by Johannes van der Spyk, all but one folding. Contemporary blindstamped vellum (rebacked, old spines laid down).

Provenance: Bibliothèque du Laboratoire de Zoologie Médicale de l'Université Catholique de Lille (bookplate, at end of volume II).

FIRST EDITION. "This work was published by the physician Boerhaave 57 years after its author's death. This early collection of microscopical observations is based on Swammerdam's own collection of over 3000 species of insects. He gave up his medical training to devote himself to the study of minute anatomy, and so intense were his efforts that he injured his sight and health. To the advantages of the microscope he added his own manipulative skill and a series of fine dissecting instruments which he made under a magnifying glass. With Redi, he rejected spontaneous generation and proposed that the process of decay in organic matter was the result of living organisms" (Dibner). Dibner *Heralds of Science* 191; Nissen ZBI 4055; Norman 2037.

Estimate: $2,000-3,000

○815

SYDENHAM, Thomas (1624-1689). *Observationes medicae circa morborum acutorum historiam et curationem.* London: Andrew Clark for Walter Kettilby, 1676.

8° (177 x 113 mm). Engraved portrait frontispiece of Sydenham by A. Blooteling after Maria Beale (single wormhole throughout and minor marginal worming to some leaves.) Comtemporary calf gilt, spine gilt lettered, Nicolas Fouquet's cipher in two compartments and the "IHS" cipher in rest (rebacked, original spine laid down); modern quarter calf folding case.

Provenance: Nicolas Fouquet (cipher on spine); Paris, Jesuits (inscription on title and monogram on spine); Joseph Ignace Guillotin, 1764 (signature on front free endpaper).

FIRST EDITION, of the revised version of Sydenham's book on fevers, first published in 1666 under the title *Methodus curandi febres*, entirely rewritten and considerably enlarged. "It contains his important study on epidemiology and is one of the fundamental texts in this branch of medicine, with numerous observations on epidemics in London from 1661 to 1675" (*Heirs of Hippocrates).* The volume is from the library of Nicolas Fouquet (1615-1680), finance minister to Louis XIV in the early years of his reign. After his death the book entered the library of the College of Jesuits in Paris, and was later owned by the physician Joseph Ignace Guillotin (1738-1814), who was, in the early years of the French Revolution, responsible for reviving the decapitation machine that bears his name. Garrison-Morton 2198; Grolier *Medicine* 35 (this copy exhibited); *Heirs of Hippocrates* 549; NLM/Krivatsy 11627; Osler 994; Waller 9402; Wing S-6314; Norman 2038.

Estimate: $2,000-3,000

○816

SYDENHAM, Thomas (1624-1689). *Tractatus de podagra et hydrope.* London: R.N. for Walter Kettilby, 1683.

8° (174 x 107 mm). Contemporary calf (rebacked, preserving original backstrip, some rubbing).

FIRST EDITION. "Among Sydenham's special monographs, 'A Treatise on Gout,' containing the first distinction between rheumatism and gout, is considered his masterpiece of clinical observation" (PMM). Based upon his own sufferings, the work "has never been surpassed... By stressing the salient features of gout,... Sydenham may have contributed to the vogue for it in the next century, the so-called 'Golden Age of Gout'.."(Norman). Garrison-Morton 4486; Osler 998; NLM/Krivatsy 11637; PMM 159; Waller 9422; Wing S-6320; Norman 2040.

Estimate: $3,000-4,000

○817

SYDENHAM, Thomas (1624-1689). *Schedula monitoria de novae febris ingressu.* London: R.N. for Walter Kettilby, 1686.

8° (185 x 112 mm). Calf antique.

FIRST EDITION. Sydenham's classic description of the neurological disease chorea minor ('Sydenham's chorea') appears on pages 25-28. Garrison-Morton 4514; NLM/Krivatsy 11635; Osler 1000; Waller 9414; Wing S-6318; Norman 2041.

Estimate: $1,000-1,500

○818

SYDENHAM, Thomas (1624-1689). *Dissertatio epistolaris ad spectatissimum doctissimumq; virum Gulielmum Cole, M.D. de observationibus nuperis circa curationem variolarum confluentium nec non de affectione hysterica.* London: M.C. for Walter Kettilby, 1682. 8° (179 x 115 mm). Disbound. FIRST EDITION. The second part of Sydenham's treatise deals with hysteria. Wing S-6309; Norman 2039 — SYDENHAM. *Dr. Sydenham's Compleat Method of Curing Almost all Diseases, and Description of their Symptoms.* London: H. Newman and Richard Parker, 1695. 12° (133 x 80 mm). Contemporary mottled calf. Second edition. NLM/Krivatsy 11633; Wing S-6308; Norman 2043.

(2)

Estimate: $600-800

)819

TAYLOR, Brook (1685-1731). *Methodus incrementorum directa & inversa.* London: Pearson for William Innys, 1715.

4° (219 x 165 mm). Numerous woodcut diagrams. (Some browning and spotting, some worming to fore-margins.) Contemporary calf (rebacked, some wear and repairs). *Provenance:* E.N. da C. Andrade (bookplate).

FIRST EDITION, containing Taylor's theorem or process for expanding functions into infinite series, known as "Taylor's theorem." It also includes the first recognition and determination of a singular solution for a differential equation, an original formula relating the derivatives of a function to those of its inverse function, determinations of the centers of oscillation and percussion, and the derivation of the fundamental frequency of a stretched vibrating string. "The *Methodus* qualifies Taylor as one of the founders of the calculus of finite differences, and as one of the first to use it in interpolation and in summation of series" (DSB). Norman 2058.

Estimate: $1,500-2,500

)820

TENON, Jacques René (1724-1816). *Mémoires sur les hôpitaux de Paris.* Paris: P.D. Pierres, 1788.

4° (252 x 193 mm). 15 engraved folding plates and 2 folding tables (some dampstaining at beginning and end.) Contemporary calf (rebacked, original backstrip preserved, edges renewed).

FIRST EDITION. "Reforms quickly followed Tenon's disclosures of the dreadful conditions prevailing in the hospitals of Paris, in the 18th century. He was also instrumental in the foundation of a special hospital for children" (Garrison-Morton). Garrison-Morton 1600; Waller 9516; Norman 2061.

Estimate: $800-1,200

)821

THOMPSON, Benjamin, count Rumford (1753-1814). *Experimental essays, political, economical and philosophical.* London: [A. Strahan and Luke Hansard for] T. Cadell, Jr. and W. Davies, 1796-1802.

8° (222 x 136mm). 11 parts (only, of 18). Part 1 with engraved vignette, the parts with a total of 19 engraved plates (1 folding) and 11 full-page woodcut illustrations, half-titles and titlepages for vols. 1 and 2 present in Parts V and VIII respectively, (an incomplete set, lacking Part X, section 3; Parts XI-XV [rest of Vol.3], and Parts XVI-XVIII [Vol.4]). Original publisher's blue-gray printed wrappers (Parts VI and Part X, section 1 in similar blue-gray boards), ENTIRELY UNTRIMMED, front wrappers and boards with printed text within decorative woodcut border (imitative of tooled bookbinding), back wrappers or boards with border and centerpiece, paper spines with small woodcut floral decorations (Part I front wrapper frayed and nearly detached, other parts with moderate fraying and wear to wrapper edges, 7 parts with paper spines partially or wholly defective); modern protective case.

Provenance: Gloucester Public Library (small oval ink stamps in various places [on verso of front wrappers or boards and at end of text], bookplate, dated 1914, on verso of front wrapper of Part I, stamped "discarded.")

FIRST EDITIONS OF PARTS IV, VI-VII, VIII-IX & X (Sections 1 and 2); Second editions of II and III, Third editions of Parts I and V. All parts are very rarely found in original condition. Thompson, born in Massachusetts, studied at Harvard and emigrated to England during the Revolution; he became a member of the Royal Society, was commissioned an officer in the British Army. He continued military and scientific experiments, took various high military posts with the Elector of Bavaria, and was knighted by George III in 1784. Although this constitutes a partial run of the separate parts of Rumford's *Essays* (issued over a 7-year period) those present here include several of Rumford's most important works, such as Essay IV *Of chimney fire-places* (1796), Essay VI *Of the management of fire, and the economy of fuel* (1797), Essay VII *Of the manner in which heat is propagated in fluids* (2 parts, 1797 & 1798), Essay VIII *Of the* *propagation of heat in various substances* (1798) and Essay IX *An inquiry concerning the source of the heat excited in friction* (1798). Together, these incorporate "the report of his experiments demonstrating the truth of the kinetic theory of heat, in which he produced a seemingly limitless supply of heat...by boring cannon barrels with a variety of drills. He also devised other experiments disproving the caloric theory of heat, weighing a block of ice before and after melting to show that heat has no weight, and demonstrating that the expansion of water between zero and four degrees Celsius is not due to the absorption of a material fluid" (Norman). Many of Rumford's experiments in applied science and technology derived from his professional position as head of the Bavarian army, which led him to experiment with and devise practical cooking, heating and lighting devices and clothing; he also took considerable interest in philanthropy and social problems, and proposed work-houses and new methods for feeding the poor (the subject of Essays I-III in this set). In studying the conduction of heat, Rumford originated a design for a steam-heating system and an efficient, non-smoking fireplace utilizing the now-standard damper, smoke shelf and throat in its chimney. Norman 2072. Sold as a periodical, not subject to return.

Estimate: $2,500-3,500

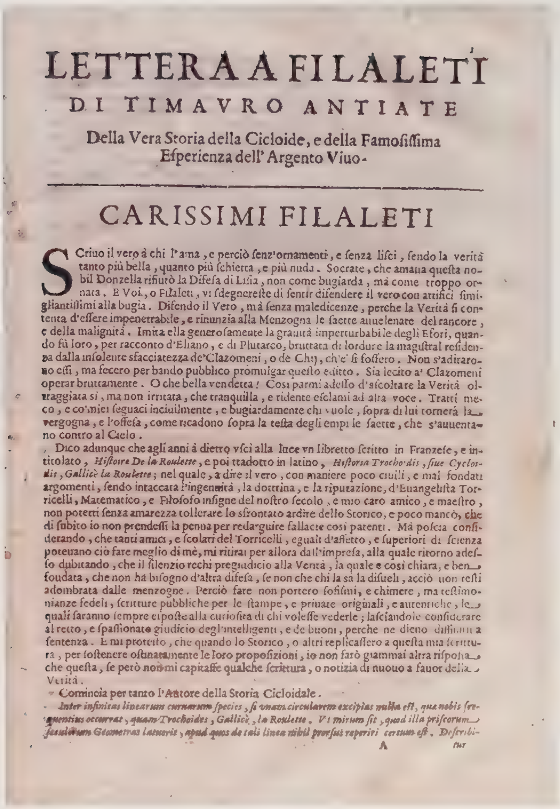
◦822

TORRICELLI, Evangelista (1608-1647). (*Opera geometrica:) De sphaera et solidis sphaeralibus libri duo. -De moto gravium naturaliter descendentium, et proiectorum libri duo. -De dimensione parabolae, solidique hyperbolici problemata duo... cum appendice de dimensione spatij cycloidalis, & cochleae.* Florence: Amadoro Massa and Lorenzo de Landis, 1644.

3 parts in one, 4° (231 x 170 mm). General half-title, part 1 title-page with imprint, section titles to parts 2-3, dedication to Grand Duke Ferdinand II de' Medici, part 3 separately signed and paginated and with separate dedication to Prince Leopold de' Medici, imprimatur leaf at end, with blank leaf A6 (part 1), numerous small woodcut diagrams, one full-page engraving, letterpress tables, woodcut head- and tailpieces and initials. (Foxing, browning to last few quires, dampstain to first few leaves, marginal tear to Gg1.) Contemporary speckled paper boards, later(?) morocco lettering-piece, UNCUT, a few quires in part 3 unopened (slight wear at hinges and board edges); modern morocco-backed folding case. *Provenance*: early rough ink diagrams on front pastedown; 18th-century shelfmark label 2996 on spine.

FIRST EDITION of the only work published during Torricelli's lifetime. A brilliant mathematician, Torricelli was Galileo's assistant and companion during the last two years of the elder scientist's life, and he succeeded Galileo in the post of grand ducal mathematician. In his *Opera geometrica*, published at the expense of Grand-Duke Ferdinand II, Torricelli elucidated and diffused the difficult geometry of Cavalieri (see lot 359), thereby gaining himself widespread recognition throughout Europe. The first part, compiled around 1641, "studies figures arising through rotation of a regular polygon inscribed in or circumscribed about a circle around one of its axes of symmetry... Torricelli...classifies such rotation solids into six kinds, studies their properties, and presents some new propositions and new metrical relations for the round bodies of elementary geometry... As Torricelli acquired increasing familiarity with the method of indivisibles, he reached the point of surpassing the master — as Cavalieri himself said" (DSB). In the second section, *De moto gravium*, Torricelli continued Galileo's study of the parabolic motion of projectiles. The treatise includes several significant contributions to mechanics, the calculus and ballistics. It also "refers to the movement of water in a paragraph so important that Ernst Mach proclaimed Torricelli the founder of hydrodynamics" (DSB). This states "Torricelli's theorem," in which Torricelli determined that the efflux velocity of a jet of liquid spurting from a small hole at the bottom of a vessel is equal to that which a single drop of the liquid would have if it could fall freely in a vacuum from the level of the top of the liquid. Norman 2086.

Estimate: $4,000-6,000



LETTERA A FILALETI
DI TIMAVRO ANTIATE

Della Vera Storia della Cicloide, e della Famoſiſſima
Eſperienza dell' Argento Viuo.

CARISSIMI FILALETI

SCriuo il vero à chi l'ama, e perciò ſenz'ornamenti, e ſenza liſci, ſendo la verità tanto più bella, quanto più ſchietta, e più nuda. Socrate, che amaua queſta nobil Donzella rifiutò la Difeſa di Liſia, non come bugiarda, mà come troppo ornata. E Voi, o Filaleti, vi ſdegnereſte di ſentir difendere il vero con artifici ſimigliantiſſimi alla bugia. Difendo il Vero, mà ſenza maledicenze, perche la Verità ſi contenta d'eſſere impenetrabile, e rinunzia alla Menzogna le ſaette auuelenate del rancore, e della malignità. Imita ella generoſamente la grauità imperturbabile degli Efori, quando fù loro, per racconto d'Eliano, e di Plutarco, bruttata di lordure la magiſtral reſidenza dalla inſolente sfacciatezza de'Clazomeni, o de Chij, ch'e' ſi foſſero. Non s'adirarono eſſi, ma fecero per bando pubblico promulgar queſto editto. Sia lecito a' Clazomeni operar bruttamente. O che bella vendetta! Così parmi adeſſo d'aſcoltare la Verità oltraggiata sì, ma non irritata, che tranquilla, e ridente eſclami ad alta voce. Tratti meco, e co'miei ſeguaci inciuilmente, e bugiardamente chi vuole, ſopra di lui tornerà la vergogna, e l'offeſa, come ricadono ſopra la teſta degli empi le ſaette, che s'auuentano contro al Cielo.

Dico adunque che agli anni à dietro vſcì alla luce vn libretto ſcritto in Franzeſe, e intitolato, *Hiſtoire De la Roulette*, e poi tradotto in latino, *Hiſtoria Trochoidis, ſiue Cycloidis, Gallicè la Roulette*; nel quale, a dire il vero, con maniere poco ciuili, e mal fondati argomenti, ſendo intaccata l'ingenuità, la dottrina, e la riputazione, d'Euangeliſta Torricelli, Matematico, e Filoſofo inſigne del noſtro ſecolo, e mio caro amico, e maeſtro, non poteti ſenza amarezza tollerare lo sfrontato ardire dello Storico, e poco mancò, che di ſubito io non prendeſſi la penna per redarguire fallacie così patenti. Mà poſcia conſiderando, che tanti amici, e ſcolari del Torricelli, eguali d'affetto, e ſuperiori di ſcienza poteuano ciò fare meglio di mè, mi ritirai per allora dall'impreſa, alla quale ritorno adeſſo dubitando, che il ſilenzio rechi pregiudicio alla Verità, la quale è così chiara, e ben fondata, che non hà biſogno d'altra difeſa, ſe non che chi la sà la diſueli, acciò non reſti adombrata dalle menzogne. Perciò fare non porterò ſofiſmi, e chimere, ma teſtimonianze fedeli, ſcritture pubbliche per le ſtampe, e priuate originali, e autentiche, le quali ſaranno ſempre eſpoſte alla curioſità di chi voleſſe vederle; laſciandole conſiderare al retto, e ſpaſſionato giudicio degl'intelligenti, e de buoni, perche ne dieno diffinitiua ſentenza. E mi proteſto, che quando lo Storico, o altri replicaſſero a queſta mia ſcrittura, per ſoſtenere oſtinatamente le loro propoſizioni, io non farò giammai altra riſpoſta che queſta, ſe però non mi capitaſſe qualche ſcrittura, o notizia di nuouo a fauor della Verità.

Comincia per tanto l'Autore della Storia Cicloidale.

Inter infinitas linearum curuarum ſpecies, ſi vnam circularem excipias nulla eſt, quæ nobis frequentius occurrat, quam Trochoides, Gallicè, la Roulette. Vt mirum ſit, quod illa priſcorum ſeculorum Geometras latuerit, apud quos de tali linea nihil prorſus reperiri certum eſt. Deſcribi-

A　　*tur*

823

[TORRICELLI, Evangelista (1608-1647)]. [Carlo DATI (1619-1676), pseudonym, "Timauro Antiate"]. *Lettera a Filaleti di Timauro Antiate della vera storia della cicloide, e della famosissima esperienza dell'argento vivo.* Florence: all'Insegna della Stella, 1663.

4° (222 x 160 mm). Collation: A-B^4 C^6. 14 leaves. Drop-title. 3 small woodcut illustrations. (Light foxing.) 19th-century half calf, spine panelled in gilt and blindstamped.

EXTREMELY RARE FIRST EDITION OF TORRICELLI'S DESCRIPTION OF HIS EXPERIMENTAL PROOF OF BAROMETRIC PRESSURE. Torricelli had described his experiment and his interpretation of it in a letter to Michelangelo Ricci dated 11 June 1644. Nearly 20 years later, the philologist Carlo Dati published in this short pamphlet important extracts from Torricelli's correspondence, including the letter to Ricci, Ricci's reply, and Torricelli's answer of 28 June 1644. A list of Torricelli's manuscript letters and notes, with their locations at the time, is printed at the end.

Torricelli is best known for his discovery that liquids are pushed up in a tube by the pressure of the atmosphere on the surface outside the tube. Galileo had shown experimentally the weight of atmospheric air in 1613, but had failed to recognize the source of the suction phenomena as the weight of the air, instead invoking a "force of vacuum". Torricelli, who conducted his experiments with progressively heavier liquids, culminating in mercury, both clearly proved and correctly interpreted the existence of atmospheric pressure. Although Torricelli'e early death prevented him from completing his experiments, he had stated in his first letter his hope to devise a means to measure the density of the air, and he is credited with the invention of the mercury barometer in theory, if not in practice. Copies of Torricelli's two letters to Ricci circulated in manuscript among Italian scientists, but the real disseminator of the news was the Père Marin Mersenne, who obtained copies of the letters from Peiresc. On a trip to Italy, Mersenne had Torricelli demonstrate the experiment again. "On his return to France, he informed his friends of Torricelli's experiment, giving rise to flourishing experimental and theoretical activity. Discovery of the barometer, Vincenzio Antinori wrote, changed the appearance of physics just as the telescope changed that of astronomy, the circulation of the blood, that of medicine, and Volta's pile, that of molecular physics" (DSB). PMM 145; Norman 2087.

Estimate: $8,000-12,000

○824

TORRICELLI, Evangelista (1608-1647). *Lezioni accademiche.* Edited by Tommaso Bonaventuri. Florence: Jacopo Guiducci, 1715.

4° (263 x 190 mm). Collation: a-b^8 c^{10}; A-F^8. 74 leaves, imprimatur leaf c10 bound at end. Half-title, engraved frontispiece portrait after Pietro Anichini, printer's engraved device on title, 2 small text woodcuts, woodcut head- and tailpieces and initials. (Half-title slightly soiled, some faint marginal dampstaining.) Contemporary Italian floral block-printed paper boards, deckle edges preserved. *Provenance*: trace of deleted inkstamp and ms. shelfmark on title.

FIRST EDITION of Torricelli's twelve unpublished lectures, delivered to the Accademia della Crusca, the Studio Fiorentino, and the Academy of Drawing. The lectures relate mainly to physics, and include discussions of impact, wind, and military architecture. "From the point of view of physics, the lectures on the force of impact and on wind are of particular interest. In the former he said that he was reporting ideas expressed by Galileo in their informal conversations, and there is no lack of original observations. For example, the assertion that 'forces and impetus' (what we call energy) lie in bodies was interpreted by Maxwell in the last paragraph of *A Treatise on Electricty and Magnetism* (1873) as meaning that the propagation of energy is a mediate and not remote action. In the lecture on wind Torricelli... advanced the modern theory that winds are produced by differences of air temperature, and hence of density, between two regions of the earth" (DSB). Bonaventuri's preface contains a biography of Torricelli and a good overview of his work; it also reprints Torricelli's letters on the barometric experiment (see lot 823).

A FINE COPY. Dibner *Heralds of Science* 149; Norman 2088.

Estimate: $2,000-3,000

○825

TRAPHAM, Thomas (d. ca. 1692). *A Discourse of the State of Health in the Island of Jamaica.* London: for R. Boulter, 1679.

8° (158 x 102 mm). (Title soiled with a few minor stains, some minor marginal browning and soiling, a few tiny rust-holes in text, occasionally catching letters.) Modern speckled calf antique. *Provenance*: G. Gilbert (early signature on title-page); London, Medical Society (ink stamp on title); Wellcome Library (accession plate on front free endpaper and withdrawal stamp on title-page verso).

VERY RARE FIRST EDITION of possibly the earliest work in English on Caribbean medicine. Trapham attended Magdalen College at Oxford, and obtained his medical degree from the University of Caen in 1664; the same year he became an honorary fellow of the College of Physicians. He was married in 1667 and left for Jamaica sometime shortly thereafter. Little else is known of Trapham, and he allegedly perished in Jamaica during the earthquake of 1692. NLM/Krivatsy 11952; Sabin 96473; Wing T-2030; Norman 2091.

Estimate: $3,000-4,000

○826

TREMBLEY, Abraham (1710-1784). *Mémoires, pour servir à l'histoire d'un genre de polypes d'eau douce, à bras en forme de cornes.* Leiden: Jean and Herman Verbeek, 1744.

4° (250 x 192 mm). 13 folding engraved plates by or after Pieter Lyonet (1708-1789). Contemporary mottled calf, spine gilt (minor wear to extremities). *Provenance*: Salis Marschlins (signature on title-page and possibly his engraved bookplate).

FIRST EDITION. The results of Trembley's studies and observations on the hydra were published in this work in 1744 at the encouragement of his friend Réaumur. "Trembley discovered the hydra and was the first to observe in it asexual reproduction, regeneration, and photosensitivity in an animal without eyes. His experiments were of great importance in the study of regeneration of lost parts. He was the first to make permanent grafts and to witness cell-division" (Garrison-Morton 307). Norman 2094.

Estimate: $1,000-1,500

ɔ827

TROTTER, Thomas (1761-1832). *Medicina Nautica: An Essay on the Diseases of Seamen: Comprehending the history of health in His Majesty's fleet under the command of Richard Earl Howe.* London: T. Cadell and W. Davies [vol. I], T.N. Longman and O. Rees, and T. Whitewood [vol. II], T.N. Longman and O. Rees [vol. III], 1797-1803.

3 volumes, 8° (213 x 128 mm). Engraved portrait frontispiece and one engraved plate (light browning, a few minor paper flaws, several library stamps throughout and on verso of plates.) Contemporary blue morocco gilt (minor wear to spines). *Provenance*: Middlesex Hospital Library (ink stamp in several places).

FIRST EDITION. An excellent account of the conditions of seamen at the beginning of the 19th century. Garrison-Morton 2159; Waller 9691; Norman 2097.

(3)

Estimate: $1,000-1,500

ɔ828

TROTTER, Thomas (1761-1832). *An Essay, Medical, Philosophical, and Chemical, on Drunkenness, and its effects on the Human Body.* London: T.N. Longman and O. Rees, 1804. 8° (210 x 128 mm). Quarter calf antique. *Provenance*: Christopher Cole (contemporary signature on title). FIRST EDITION. The first medical treatise on alcoholism. Garrison-Morton 2071.1; Norman 2098. — TROTTER. *A View of the Nervous Temperament, being a practical inquiry into the increasing prevalence, prevention, and treatment of those diseases commonly called nervous...* Troy: Wright, Goodenow, and Stockwell, 1808. 12° (170 x 105 mm). Contemporary tree sheep (light rubbing to edges). *Provenance*: P. Osterbank (signature on fly leaf); Charles L. Willmarth (bookplate). First American Edition. One of the first psychiatric books to be printed in the United States. Norman 2099.

(2)

Estimate: $800-1,200

ɔ829

TRYON, Thomas (1634-1703). *A New Method of Educating Children: or, Rules and Directions for the Well Ordering and Governing Them, during their Younger Years.* London: for J. Salusbury and J. Harris, 1695.

12° (140 x 81 mm). (Some margins chipped and frayed, final 2 leaves with large fore-margin chips affecting some text.) Contemporary calf (corners worn).

FIRST EDITION of Tryon's treatise, which as the title states, is "recommended to Parents, Nurses, Tutors, and all others concerned in the Education of Children." Tryon's work is notable for its liberal attitude towards discipline and language training. Tryon wrote works on mystical philosophy and dietetics and founded the movement known as "Tryonism," which was characterized by temperance, pacifism, vegetarianism and religious mysticism. Wing T-3190; Norman 2101.

Estimate: $1,500-2,500

ɔ830

[TULL, Jethro (1674-1741)]. *The Horse-Hoing Husbandry: or, an Essay on the Principles of Tillage and Vegetation. -A Supplement to the Essay on Horse-Hoing Husbandry.* London: for the author, 1733-36.

2° (295 x 179 mm). 6 engraved folding plates (one torn). (Some minor dampstaining at end, mostly marginal.) Modern panelled calf antique. *Provenance*: Herbert Mackworth (early signature on title-page and ownership inscription on liecence leaf recto.

Second edition. This enlarged edition was the first to add illustrations and also includes the first edition of the supplement at end. Tull's invention of the seed-drill and horse-hoe introduced to England the labor-saving practices of mechanical sowing and inter-row cultivation. PMM 188n; Norman 2113.

Estimate: $1,000-1,500

o831

TULP, Nicolaas (1593-1674). *Observationum medicarum. Libri tres.* Amsterdam: Elzevir, 1641. 8° (152 x 97 mm). 14 engraved illustrations in text. Contemporary vellum. FIRST EDITION. "Nicolaas Tulp-best known today as the subject of Rembrandt's painting 'The anatomy lesson of Dr. Tulp'- made numerous contributions to anatomy and pathology in this work... Tulp was the first European writer to use the term 'Orang-outang'" (Norman). NLM/Krivatsy 12007; Waller 9715; Willems 1155; Norman 2114 — TULP. *Observationes medicae. Editio nova, libro quarto auctior, et sparsim... emendatior.* Amsterdam: Elzevir, 1652. 8° (155 x 96 mm). 18 engraved illustrations in text (minor worming at beginning). Contemporary vellum. *Provenance*: B. Mohr (signature on title). Second edition. Enlarged by a fourth book and with 4 additional plates. Garrison-Morton 3737; *Heirs of Hippocrates* 464; NLM/Krivatsy 12008; Waller 9716; Norman 2115.

(2)

Estimate: $1,000-1,500

o832

TURNER, Matthew (d. 1788?). *An Account of the extraordinary medicinal fluid, called Aether.* [Liverpool]: John Sadler, 1761.

8° (195 x 117 mm). 8 leaves. (First word shaved slightly on title-page, a few minor tears at inner margin of final leaf.) Modern half mottled calf.

Second edition. Turner, a chemist and surgeon, was one of the group of Manchester literary and scientific figures who founded the Warrington Academy. He attended Josiah Wedgwood and afterwards supplied him with various chemicals. Turner is also credited with introducing Joseph Priestley to the subject of chemistry in a series of lectures delivered at Warrington about 1765. "Turner manufactured and dispensed sulfuric ether as a remedy for headache, vertigo, epilepsy, gout and rheumatism, palsy and digestive disorders; for most of these ailments, ether was to be taken orally, but for some, such as headache, Turner also recommended that it be 'snuff[ed] ... up the Nostrils.' With this recommendation of the inhalation of ether for killing pain, Turner has a place in the pre-history of anesthesia" (Norman). Two variant issues of the second edition have been noted; the Norman copy belongs to what is believed to be the earlier issue without place of publication on title; another issue exists with a London imprint giving the name of J. Wilkie as the printer. RARE. Fulton-Stanton, *Anesthesia* 1.19; Norman 2116.

Estimate: $1,000-1,500

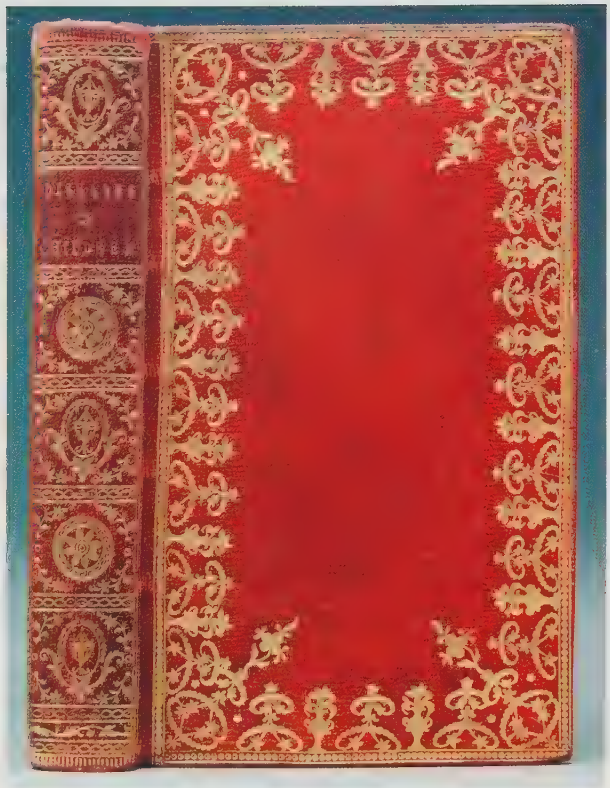
o833

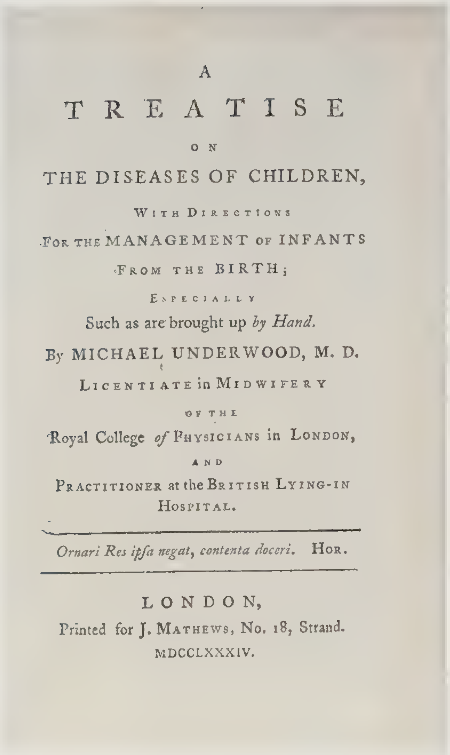
TYSON, Edward (1650-1708). *Orang-Outang, sive Homo Sylvestris: or, the anatomy of a pygmie compared with that of a monkey, an ape, and a man - A philological essay concerning the pygmies, gynocephali, satyrs and sphinges of the ancients.* London: Thomas Bennet, and Daniel Brown, for Mr Hunt, 1699.

4° (270 x 207 mm). 8 engraved folding plates after William Cowper by Michael Vander Gucht. (Small tears to some plates at folds, last plate cut into, and with hole and tear repaired affecting Figure 16, some browning and staining throughout). Contemporary blind-tooled speckled calf (rebacked, corners renewed, binding dried and worn). *Provenance*: Wynfrid Laurence Henry Duckworth (1870-1956) zoologist and anthropologist (inkstamp); Army Medical Library, Ceylon (inkstamp on 2 plates).

FIRST EDITION OF THE FIRST IMPORTANT WORK ON COMPARATIVE MORPHOLOGY. Tyson established the connection of anthropoid apes between man and monkey, the first formulation of the idea of the "missing link," which was more fully explored by the works of Huxley and Darwin in the 19th century. The "typical pygmy" which Tyson placed between man and monkey was in fact an African chimpanzee. Garrison-Morton 153; NLM/Krivatsy 12028; P.M.M. 169; Wing T-3598; Norman 2120.

Estimate: $5,000-7,000





A

TREATISE

ON

THE DISEASES OF CHILDREN,

WITH DIRECTIONS

FOR THE MANAGEMENT OF INFANTS

FROM THE BIRTH;

ESPECIALLY

Such as are brought up *by Hand.*

By MICHAEL UNDERWOOD, M. D.

LICENTIATE in MIDWIFERY

OF THE

Royal College *of* PHYSICIANS in LONDON,

AND

PRACTITIONER at the BRITISH LYING-IN HOSPITAL.

Ornari Res ipſa negat, contenta doceri. HOR.

LONDON,

Printed for J. MATHEWS, No. 18, Strand.

MDCCLXXXIV.

5834

UNDERWOOD, Michael (1737-1820). *A treatise on the diseases of children, with directions for the management of infants from the birth; especially such as are brought up by hand.* London: J. Mathews, 1784.

8° (151 x 92 mm). (One gathering spotted). Straight-grained red morocco, gilt beaded border, alternating urn and floral beaded ornaments, and a floral and leaf ornament at each corner. Smooth spine divided into six panels, lettered in one and the others tooled in gilt with alternating urn and floral devices, fore-edges and turn-ins gilt. *Provenance*: bound for Queen Charlotte of England (1744-1818), consort of King George III and the dedicatee (inscription on flyleaf "Bought at the sale of Queen Charlotte's books in June 1819"); Lord Naas (armorial bookplate); Lady Naas (inscription).

FIRST EDITION, DEDICATION COPY. The foundation work of modern pedriatrics, going through seven editions in the author's lifetime. Underwood practised as a man-midwife, was attached to the British Lying-In Hospital, and attended the Princess of Wales, Caroline of Brunswick, at the birth of the Princess Charlotte in 1796. The work was dedicated to Queen Charlotte, the mother of fifteen children. Garrison-Morton 6326, 4015; Grolier *Medicine* 48 (this copy exhibited); *Heirs of Hippocrates* 1024; NLM/Blake, p.463; Osler 4144; Norman 2121.

Estimate: $6,000-8,000

○835

UNDERWOOD, Michael (1737-1820). *A treatise on the diseases of children, with general directions for the management of infants from the birth.* London: J. Mathews, 1789.

2 volumes. 8° (160 x 94 mm). Contemporary tree calf, gilt-ruled spines. *Provenance*: William Francis Wye (inscription); Sarah Hadow (presentation inscription, 1793).

Second edition, including the first accounts of congenital heart disease and of poliomyelitis in children. Norman 2122.

(2)

Estimate: $800-1,200

○836

VALSALVA, Antonio Maria (1666-1723). *De aure humana tractatus.* Bologna: Constantino Pisari, 1704.

4° (230 x 166 mm). 10 engraved plates. (Some pale dampstaining, a few marginal ink stains.) Late 18th-century vellum gilt. *Provenance*: Frank G. Burch (bookplate).

FIRST EDITION OF THE FIRST FULL ACCOUNT OF THE MINUTE ANATOMY OF THE EAR. Valsalva is best remembered for this treatise on the ear, "in which he described and depicted its most minute muscles and nerves. He divided the ear into 'external,' 'middle,' and 'internal'; his method of inflating the middle ear (Valsalva's manoeuvre) is still practised" (Garrison-Morton). It also includes a description of "Valsalva's dysphagia. Valsalva was responsible for naming the tube in the middle ear the ”Eustachian tube,“ after Bartolomeo Eustachi, his predecessor who provided the first post-classical account of the tube in his pioneering treatise on the ear (*De auditus organis*, published in his *Opuscula anatomica* in 1564). Garrison-Morton 1546; Norman 2125.

Estimate: $2,000-3,000

○837

VALSALVA, Antonio Maria (1666-1723). *Opera hoc est tractatus de aure humana editione hac quarta accuratissime descriptus.* Edited by Giovanni Battista Morgagni (1682-1771). Venice: Francesco Pitteri, 1740.

2 volumes, 4° (264 x 192 mm). Title-page in first volume printed in red and black, small woodcut vignettes on title-pages, engraved frontispiece, 13 engraved folding plates. (Errata leaf repaired at end of Vol. 1.) Contemporary speckled sheep, spines richly gilt (some wear at corners, covers skinned in a few places). *Provenance*: early owner's notations on rear endpages of first volume.

First collected edition of Valsalva's works, edited by his student Morgagni. It includes a reprint of his important treatise on the anatomy and physiology of the human ear, *De aure humani tractatus*. The preface by Morgagni constitutes the first and most important biography of Valsalva. A FINE SET. Garrison-Morton 803; Norman 2126.

(2)

Estimate: $800-1,200

○838

VARENIUS, Bernhard (1622-1650). *Geographia generalis in qua affectiones generales telluris explicantur.* Amsterdam: Elzevier, 1650.

12° (125 x 74 mm). Engraved title, one woodcut folding plate and 4 printed folding tables. Contemporary red morocco, covers paneled in gilt, spine elaborately gilt, g.e. (minor staining to upper cover). *Provenance*: G. Ferri and G.B.F. (old ink stamp on verso of *6).

FIRST EDITION. "The best known of Varenius' works. The *Geographia generalis* established a framework for physical geography capable of including new facts of discovery as they arose. The work became the standard geographic text for more than a century" (DSB). The first English edition (1672) was edited by Isaac Newton. Willems 1120; Norman 2130.

Estimate: $2,000-3,000

5839

VERHEYEN, Philipp (1648-1710). *Corporis humani anatomia.* Louvain: Aegidius Denique, 1693.

4° (200 x 160 mm). 30 engraved plates, including 29 folding. (Lacks endpapers, a few gatherings loose.) Contemporary calf, spine gilt. *Provenance*: de Catolybe (?) 1737 (ownership inscription on preliminary blank); Speyer & Peters, Berlin (bookseller's ticket inside upper cover).

FIRST EDITION. Verheyen's work replaced Thomas Bartholin's *Institutiones anatomicae* as a popular anatomical textbook. Choulant, pp. 248-249; Garrison-Morton 388; NLM/Krivatsy 12296; Norman 2133.

Estimate: $1,200-1,800

5840

VICQ D'AZYR, Félix (1748-1794). *Traité d'anatomie et de physiologie, avec des planches coloriées représentant au naturel les divers organes de l'homme et des animaux... Tome premier* [all published]. Paris: François Ambroise Didot l'aîné, 1786.

Large 2° (477 x 312 mm). Half-title, allegorical aquatint frontispiece, printed in color and finished by hand, engraved explanation leaf by Beaublé, typographic dedication leaf to Louis XVI, "Discours sur l'anatomie en générale" (pp. [1]-54), "Vocabulaire anatomique, augmenté d'un grand nombre de termes nouveaux" (pp. [55]-123), "Explication des planches" (pp. [1]-111, with 5 divisional titles of which numbers 1,2 and 5 not included in the pagination). 69 plates, numbered 1-35, consisting of 34 number-keyed line engravings and 34 aquatints, some with stipple engraving, printed in two or more colors, and representing the same figures as the line engravings but printed from different plates, plus a single line-engraved plate (18) copied from Soemmering, *De basi encephali* (Göttingen 1778), the frontispiece and plates by and after Alexandre Briceau. (Slight marginal dampstaining to frontispiece and to last few plates, some light mostly marginal discoloration, occasional minor marginal tears or repairs.) Modern half red moorcco antique, spine gilt, by Bernard Middleton (free endpapers creased). *Provenance*: illegible purple ink-stamped signature on half-title.

FIRST EDITION of "the most accurate neuroanatomical work produced before the advent of microscopic staining techniques" (Garrison-Morton). Vicq d'Azyr, permanent secretary to the Société Royale de Médecine and personal physician to Marie-Antoinette, was a skilled comparative anatomist, eminent veterinarian, and prolific writer of medical articles and treatises, those on comparative anatomy and public health being of the most lasting importance. The interest of the present work, projected as a multi-volume study of human anatomy and physiology but never finished, lies in its intelligent utilization of the new print-making technique of aquatint for the purpose of accurate anatomical illustration. The striking illustrations "created a sensation at the time," according to Brunet. Vicq d'Azyr's principal original contributions to the understanding of human anatomy lay in his studies of the brain, the subject of this first volume. He developed a technique of brain dissection using the hardening effect of alcohol, which avoided damage to the delicate surfaces (fixatives such as formalin having not yet been developed). "Like Steno before him, Vicq d'Azyr attached great importance to the structure of the fibers in the white matter of the brain... He also described the mammillothalamic bundle and Reil's ribbon. Rejecting the views of Malpighi and Vieussens, who attributed no functional importance to the cerebral cortex, Vicq d'Azyr attempted to systematize its complex morphology. In particular he isolated the convolution of the corpus callosum, the cuneus, and the sulcus separating the frontal lobe from the parietal, later described by Rolando (1829)" (DSB). One of his principal concerns was the absence of a standard nomenclature for the cerebral convolutions, a problem that he attempted to remedy in the present work, which contains the entire corpus of his work on the brain.

Vicq d'Azyr had commenced publication of the work in parts, undoubtedly at his own expense. The Revolution prevented its completion, and, since the instructions for binding the work were probably never issued, copies differ in the order in which they are bound. COMPLETE COPIES ARE RARE. Brunet V, 1176; Garrison-Morton 401.2; *Heirs of Hippocrates* 1073; Waller 9953; Norman 2150.

Estimate: $10,000-15,000

VIEUSSENS DOCTOR MED MONSPELIENSIS
ANNUM AGENS XXXV RAYMUNDUS

841

VIEUSSENS, Raymond (ca. 1635-1715). *Neurographia universalis*. Lyons: Jean Certe, 1684.

2° (335 x 222 mm). Half-title, title printed in red and black with large engraved printer's monogram, errata leaf singleton a1 at end, engraved portrait of the author by Mathieu Boulanger, 30 numbered engravings, consisting of 7 engravings in the text and 23 engraved plates, of which 3 double-page and 9 folding (plates 28 and 39 very large folding plates each composed of 6 attached sheets or portions of sheets), woodcut initials and headpieces. (Portrait supplied from another copy, some mostly marginal spotting, marginal dampstaining to last few quires damaging upper fore-corners of last few leaves, small stain affecting large folding plates 28 and 29 and quire Ff, repaired tear to plate 29, occasional minor staining at sheet junctures of plates, a few minor marginal tears at guards of folding plates.) Contemporary limp vellum (covers bowed, lower cover mildewed).

Provenance: Johann Friedrich Blumenbach (1752-1840), anatomist and the first modern anthropologist (engraved booklabel and note on the work on verso of front free endpaper).

FIRST EDITION, FIRST ISSUE, with title dated 1684, of the most thoroughly illustrated monograph of the nervous system of the 17th-century, and an important contribution to the study of the brain and spinal cord. Vieussens was chief physician of the Hôtel-Dieu de St. Éloi for over 40 years, a post that permitted him to perform a large number of autopsies. His research into the central nervous system was "of great importance. In *Neurographia universalis* he sought to continue the work of Thomas Willis [see lots 866-870], which he greatly admired. The first to make good use of Steno's suggestion that the white substance in the brain should be studied by tracing the paths of its fibers, Vieussens described the olivary nucleus and the centrum semiovale; the latter still bears his name. Moreover, his description of the fine structure of the cerebellum, including the discovery of the dentate nuclei, surpassed all previous publications on the subject. The most original part of the work concerns the paths of the peripheral nerves" (DSB). Vieussens' most important observations, which he himself greatly underrated, concerned the pathology of heart disease; these were undertaken in the last decade of his life and published in his *Traité nouveau de la structure... du coeur* (Toulouse 1715).

The fine engraved illustrations of his neurological treatise include two large folding plates of the nervous system (plates 28-29), printed from two impressions of a single plate, of which one in reverse, presumably printed through an offset technique: the figure's left side (on the viewer's right), is an exact reverse image of the right side, including the captions and key-numbers. Both the scarcer first issue and the second issue, in which the title is dated 1685, are misleadingly described as *editio nova* on the title.

FINE ASSOCIATION COPY. Garrison-Morton 1379; *Heirs of Hippocrates* 641; NLM/Krivatsy 12403; Osler 4171; Waller 9961; Norman 2153.

Estimate: $8,000-10,000

842

VOLTA, Alessandro (1745-1827). "On the Electricity excited by the mere Contact of conducting Substances of different kinds" [drop-title]. In: *Philosophical Transactions* 90 (1800), part 2, pp. 403-431. London: W. Bulmer & Co. for Peter Elmsley, 1800.

4° (273 x 212 mm). Folding engraved plate. (Some minor marginal browning and scattered pale spotting.) Contemporary half calf (worn). *Provenance*: James Brodie of Brodie (engraved bookplate).

"THE FIRST ANNOUNCEMENT OF THE VOLTAIC 'PILE,' OR ELECTRIC BATTERY" (Horblit). Volta's invention of the electric battery (the "voltaic pile") was composed of pairs of silver and zinc disks separated by cardboard soaked in saline or acid solution. It was a breakthrough in pysics, and led to the development of electrotechnology. "The voltaic pile revolutionized the theory and practice of electricity, so that within one hundred years of Volta's invention more progress was made than in the two thousand four hundred years between the tentative experiences of Thales and the publication of Volta's letter addressed to Sir Joseph Banks, President of the Royal Society" (PMM). The chemical properties immediately inspired the electrolyzing experiments and led to William Nicholson's decomposition of water and Davy's discovery of the elements sodium and potassium. It inspired studies of the physical properties of the electric current which led to the laws of Ohm, Oersted and Faraday, and the dawn of electrotechnology. "With this new force, water was decomposed, metal was electro-deposited, the electro-magnet was created and the electrical age was begun" (Dibner).

[*Bound with*:]

HERSCHEL, William (1738-1822). "Investigation of the Powers of the prismatic Colours to heat and illuminate Objects." — "Experiments on the Refrangibility of the invisible Rays of the Sun." — "Experiments on the Solar and on the Terrestrial Rays that occasion Heat." 3 papers in: *Philosophical Transactions* 90 (1800), part 2, pp. 255-83; 284-92; 293-326, respectively. 4°. 7 folding engraved plates (the first two papers with one apiece and the final paper containing 5). FIRST APPEARANCES of Herschel's three important papers containing his investigations of the rays of the solar spectrum to determine which were responsible for heat production. Through these experiments he dicovered the infra-red rays. Dibner 60; PMM 254; Norman 1059A.

Estimate: $1,000-1,500

843

VOLTAIRE, François Marie Arouet de (1694-1778). *Elémens de la philosophie de Neuton.* Amsterdam: Jacques Desbordes, 1738.

8° (214 x 131 mm). Title printed in red and black with engraved vignette, numerous engraved head- and tail-pieces, frontispiece portrait of Newton, portrait of Volatire, 6 engraved plates, engraved folding table, numerous engravings and some woodcut diagrams in text. Early 19th-century red straight-grained morocco, covers gilt with wide gilt roll-tooled borders, smooth spine with gilt compartments, board edges and turn-ins gilt, gilt edges, in the style of Derome le jeune; quarter morocco folding case.

FIRST EDITION of this popularization of Newton's scientific and philosophical ideas. "From 1725 to 1728, Voltaire lived in exile in England and became a fervent admirer of the Newtonian philosophy which he introduced into France. He may have met Newton ... he attended his funeral and knew his niece, Clara Barton Conduitt" (Babson/Newton). It presents Newton as the discoverer of the true system of the world and the destoyer of the errors of Cartesianism. The text is preceded by both a poem and dedication to Volatire's mistress, the brilliant Marquise du Ch[âtelet], who likewise studied Newton and provided the first French translation of the *Principia* (1759).

The Norman copy is a variant issue of this edition, with the Desbordes imprint and several text variations. "Both versions contain only twenty-five chapters, as Voltaire did not supply either publisher with a complete manuscript" (Norman). A twenty-sixth chapter on fluxions was added to the "nouvelle" edition published in Paris the same year (see lot 844). Babson/Newton; Wallis 155; Norman 2165.

Estimate: $3,000-4,000

844

VOLTAIRE, François Marie Arouet de (1694-1778). *Elémens de la philosophie de Neuton ... nouvelle edition.* London [i.e. Paris: Prault], 1738.

8° (192 x 120 mm). Title printed in red and black. Engraved title vignette, portrait of Voltaire (lacks portrait of Newton), 6 engraved plates, engraved folding table, numerous engravings in the text, some woodcut diagrams in text. (A few minor marginal stains.) Contemporary calf gilt, edges gilt.

Provenance: Le Ratz de Lanthenée (d. ca. 1770), mathematician (presentation inscription from the author on front flyleaf: "a M de Lanthené / de la part de son tres humble serviteur / de Voltaire."); Lankinghaufen? (signature and inscription mentioning it was received from Lanthené in 1741).

Second edition. PRESENTATION COPY FROM VOLTAIRE TO THE BELGIAN MATHEMATICIAN LANTHENÉE. Lanthenée corresponded with Voltaire concerning Newton philosophy and published his *Lettre à M. Voltaire sur son écrit intitulé: Reponse aux objections contre la philosophie de Neuton* in 1739. Wallis 156; Norman 2166.

Estimate: $2,000-3,000

845

WALLIS, John (1616-1703). *Mechanica: sive de motu, tractatus geometricus.* London: William Godbid for Moses Pitt, 1670.

4° (199 x 154 mm). 3 parts in one, portrait frontispiece drawn and engraved by William Fairthorne (1616-1691), 17 folding plates (occasional spotting and browning throughout). Contemporary panelled calf, gilt-ruled spine (joints cracked and splitting). *Provenance*: Beilby Thompson of Escrick (bookplate).

FIRST EDITION, "a major advance in the mathematization of mechanics" (DSB). The first part deals with forms of motion in a geometrical (or Euclidean) manner, the second (and longest) part treats with the calculation of centers of gravity, and the third part is devoted toelementary machines and percussion. Wing W-593; Norman 2181.

Estimate: $1,000-1,500

846

WATERHOUSE, Benjamin (1754-1846). *A prospect of exterminating the small-pox; being the history of the variolae vaccinae, or kine-pox, commonly called the cow-pox;* [Vol. II: *A prospect ... part II, being a continuation of a narrative of facts concerning the progress of the new innoculation in America; together with practical observations on the local appearance, symptoms, and mode of treating the variola vaccina*]. Cambridge: for the author at the University Press, by William Hilliard, 1800 (Vol. 2, 1802).

2 volumes. 8° (199 x 114 mm [Vol. 1]; 193 x 118 mm [Vol. 2]. (Vol. 2 browned and spotted, small tear to vol. 2 title leaf.) Modern cloth [Vol. 1]; later quarter blue calf, marbled boards (edges worn) [Vol. 2]. *Provenance*: Surgeon General's Office Library (bookplate, NLM withdrawal stamp); "Savannah, Georgia, 1802" (illegible inscription); Army Medical Library, Cleveland Branch (bookplate, Vol. 2).

FIRST EDITION. Waterhouse learnt of Jenner's discoveries of a cowpox vaccination against smallpox in 1800, and after six weeks of successful trials (starting with his own children and servants), published his first report (Vol. 1). The vaccination was immediately very popular, but was often administered incorrectly, despite Waterhouse's warnings and instructions, and led to an outbreak of smallpox, for which Waterhouse was blamed. In 1802, the Boston Board of Health cleared Waterhouse's name and declared "cow-pox is a complete security against the small-pox". In Part II Waterhouse proclaimed the efficiacy of the vaccination and gave instructions for its correct use. Austin 2012-2013; Garrison-Morton 5424; Norman 2187.

(2)

Estimate: $2,000-2,500

ɔ847

WEBSTER, John (1610-1682). *The displaying of supposed witchcraft.* London: J.M., 1677. 2° (350 x 228 mm). Contemporary speckled calf (rebacked).

FIRST EDITION. Webster argued with those of his contemporaries who sought scientific and philosophical support for belief in witchcraft. He did not deny altogether the existence of the supernatural, but attacked the more extravagant reports of the powers of witches and "the truth of apparitions, the nature of astral and sidereal spirits, the force of charms and philters ... [and] other abstruse matters." NLM/Krivatsy 12612; Wing W-1230; Norman 2191.

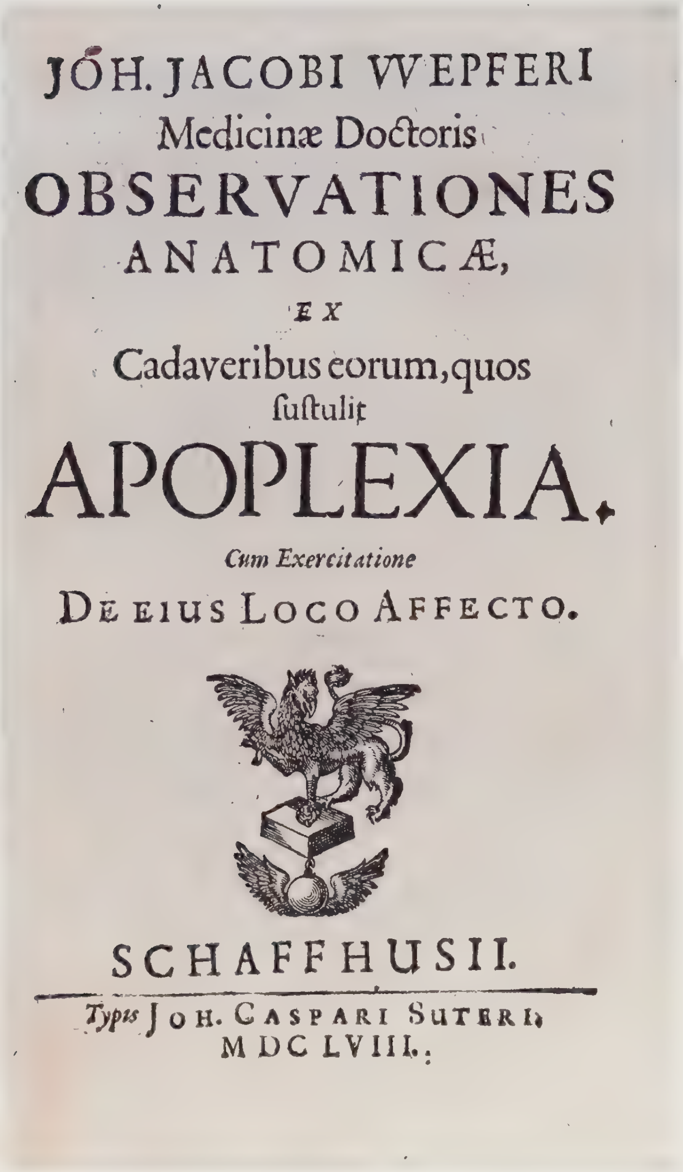
Estimate: $800-1,000

ɔ848

WELLS, William (1757-1817). *An essay upon single vision with two eyes: together with experiments and observations on several other subjects in optics.* London: T. Cadell, 1792. 8° (250 x 125 mm). (Occasional very minor foxing). Contemporary quarter sprinkled calf, marbled boards (rebacked, worn). *Provenance*: Alexander Young (presentation copy inscribed by the author and with a few corrections in the author's hand). FIRST EDITION. Norman 2198. - WELLS. *An essay on dew and several appearances connected with it.* London: W. Calvert for Taylor and Hessey, 1814. 8° (225 x 142 mm). (Some foxing to title page and endpapers). Contemporary quarter calf, gilt spine, UNCUT. *Provenance*: Richard Moulson (inscription); Halifax Literary and Philosophical Society's Library (bookplates). FIRST EDITION. Wells was awarded the Rumford Medal of the Royal Society for this essay, which marked an important step in the development of the science of ventilation. Garrison-Morton 1604; Norman 2199. — WELLS. *Two essays: one upon single vision with two eyes; the other on dew. A letter to the Right Hon. Lloyd, Lord Kenyon and an account of a female of the white race of mankind, part of whose skin resembles that of a negro; with some observations on the causes of the differences in colour and form between the white and negro races of men. With a memoir of his life written by himself.* London: Thomas Davison for Archibald Constable (Edinburgh); and Longman and others (London), 1818. 8° (213 x 134 mm). Later brown boards, green leather spine label. FIRST COLLECTED EDITION, INCLUDING THE FIRST STATEMENT OF THE THEORY OF NATURAL SELECTION. The work was largely unknown until it was resurrected in the 1860s, after the publication of Darwin's *On the origin of species.* Garrison-Morton 216.2; Norman 2200.

(3)

Estimate: $800-1,200



JOH. JACOBI VVEPFERI
Medicinæ Doctoris
OBSERVATIONES
ANATOMICÆ,
EX
Cadaveribus eorum, quos
ſuſtulit
APOPLEXIA.
Cum Exercitatione
DE EIUS LOCO AFFECTO.

SCHAFFHUSII.
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(actual size)

849

WEPFER, Johann Jakob (1620-1695). *Observationes anatomicae, ex cadaveribus eorum, quos sustulit apoplexia.* Schaffhausen: Johann Kaspar Suter, 1658.

8° (153 x 93 mm). Woodcut illustration in text. Contemporary vellum, spine ink lettered.

FIRST EDITION. In the *Observationes anatomicae* "Wepfer showed that apoplexy was a result of cerebral hemorrhage and described four cases with clinical and postmortem findings. He also clearly described the circular anastomosis of arteries at the base of the brain..." (*Heirs of Hippocrates*). Garrison-Morton 2703; *Heirs of Hippocrates* 534 (1675 edition); NLM/Durling 12950; Waller 10220; Norman 2203.

Estimate: $4,000-6,000

ↄ850

WERNER, Abraham Gottlob (1750-1817). *Von den äusserlichen Kennzeichen der Fossilien.* Leipzig: Siegfried Lebrecht Crusius, 1774.

8° (174 x 104 mm). 8 folding tables. Contemporary boards.

FIRST EDITION. Werner's rare first published work in which he classified the outward characteristics of minerals and established standards of quantification which continued to be used into the 19th-century. He is best known as the author of an influential oceanic theory of the origin of world's crust, which gave rise to the Neptunist-Vulcanist theory which was to dominate 19th-century geology. Dibner *Heralds of Science* 81; Sparrow *Milestones of Science* 196; Ward & Carozzi 2299; Norman 2205.

Estimate: $2,000-3,000

ↄ851

WERNER, Abraham Gottlob (1750-1817). *Neue Theorie von der Entstehung der Gänge, mit Anwendung auf den Bergbau besonders den freibergischen.* Freiberg: Gerlach, 1791. 8° (174 x 100 mm). Contemporary purple boards (spine faded). FIRST EDITION. "Werner's work helped to make the study of vein formation an integral part of historical geology" (Norman). Hoover 878; Ward & Carozzi 2305; Norman 2206 — WERNER. *Mineral-System.* Freiberg and Vienna: Craz, Gerlach and Gerold, 1817. 8° (200 x 117 mm). Contemporary quarter sheep (minor wear to head of spine). *Provenance*: Henryson (signature on title page). First edition in book form. Hoover 977; Ward & Carozzi 2314; Norman 2207.

(2)

Estimate: $1,000-1,500

ↄ852

WEYER, Johann (1515-1588). *De praestigiis daemonum, et incantationibus, ac ueneficijs, libri V.* Basel: Johannes Oporinus, 1563.

8° (158 x 103 mm). Collation: a-z A-G^8. 240 leaves. Italic type. (Title with some inscriptions erased, weak in a few places and small repair to blank area, marginal repair to G8, minor browning and staining.) 18th-century sheep, spine gilt (rubbing to edges and upper cover).

Provenance: Sum Joannis Pauli He... Landishuti 1567" (inscription, title page); "Ex libris Jo. Conradi Herwarth. C. Reg. Consiliarij Landishuti A. 1645" (inscription, title page); unidentified Hungarian library (inkstamp on title).

FIRST EDITION. "Weyer approched the subject of witchcraft from four different viewpoints: theological, philosophical, medical, and legal... The book contains more than sixty reports of cases of alleged witchcraft or of unusual mental phenomena observed directly by Weyer, related personally to him in oral or written form, or known to him in various ways. Contrary to the received opinion of his day, which held that witchcraft was evidence of demonic possesions, Weyer believed the basic cause of witchcraft to be disturbance of imagination, that faculty traditionally regarded as the interface between bodily and mental functions. He described most of those accused of witchcraft as poor, gullible old women who had fallen into this reckless credulity because of 'their being circumvented by fraud, constrained by force, compelled by fear, induced by error, and deceived by ignorance.' Weyer brought a serene, rational approach to the investigation of each case, establishing and confirming the facts, providing a firsthand assessment of the situation through description of the person's appearance, behavior, speech, ideation, and emotional traits, and following these with the formulation of a concrete and sensible plan of treatment, often based on what we would now describe as psychological principles... He was a great precursor of modern psychiatry." (Grolier *Medicine* 20)

Adams W-144; Garrison-Morton 4916; Grolier *Medicine* 20 (this copy exhibited); NLM/Durling 4734; Norman 2209.

Estimate: $3,000-4,000

853

WEYER, Johann (1515-1588). *De praestigiis daemonum, et incantationibus, ac ueneficijs, libri V.* Basel: Johannes Oporinus, 1564.

8° (168 x 109 mm). Collation: a-z A-Q^8. 312 leaves. Italic type. (Upper margin of title cropped and with some inscriptions erased, last digit of imprint altered in ink to "6" in manuscript, light browning throughout.) Contemporary limp green vellum (light wear to edges, minor worming to upper cover). *Provenance*: Early ownership inscriptions (title page, endpapers, some marginalia); Oswald von Zingerli (front free endpaper).

Second edition. Adams W-145; Norman 2210.

Estimate: $800-1,200

854

WEYER, Johann (1515-1588). *Von verzeuberungen verblendungen auch sonst viel und mancherley gepler des Teuffels unnd seines gantzen Heers...* Translated from Latin by Johann Füglin. Basel: [Füglin?], 1565.

8° (156 x 99 mm). Collation:)(^{8} ★^{8} +^{8} a-z A-Z Aa-Zz 2A^8 2B^4 588 leaves. Black letter. (Lacks 2B4, supplied in facsimile, light marginal staining.) Contemporary blindstamped pigskin over wooden boards, brass clasps. *Provenance*: M. Jois Erhardt Vic Capell (inscription on title); Theodor Karajan (19th-century bookplate); "Bei Köhler Antiquar in Leipzig gekauft am 12. März 1876" (inscription on front free endpaper).

First edition in German. Weyer was not pleased with Füglin's unauthorized translation, which he found to be full of errors. He issued his own German translation the following year. Binz p. 67; Norman 2217.

Estimate: $1,000-1,500

855

WEYER, Johann (1515-1588). *De praestigiis daemonum, et incantationibus ac veneficiis, libri V.* Basel: Johannes Oporinus, 1566.

8° (162 x 100 mm). Collation: a-z A-C^8 D^2 E-Z Aa-Ee^8 Ff^4. 406 leaves. Roman type. Woodcut illustration in text. (Upper margin trimmed close, not affecting text.) Modern half morocco. *Provenance*: Orwell (1572 inscription on title).

Third edition. Adams W-146; Norman 2211.

Estimate: $600-800

856

WEYER, Johann (1515-1588). *De praestigiis daemonum, & incantationibus ac uenesiciis libri sex, postrema editione quinta aucti & recogniti.* Basel: *Heirs of* Johannes Oporinus, 1577. 2 works bound in one volume, 4° (249 x 180 mm). Collation: a-z A-Z 2A-2S^4. 256 leaves. Roman type. Woodcut portrait and woodcut illustration in text. (Minor marginal worming.) Contemporary citron morocco, gilt coat-of-arms of Jacques-Auguste de Thou and his first wife Marie Barbançon (Olivier 216, fers 5 and 9) on covers, gilt monogram "IAM" repeated five times on spine. (Light worming to lower portion of both covers, minor staining and small abrasion to upper cover). Modern half morocco folding case. *Provenance*: Jacques-Auguste de Thou (1553-

1617) and his first wife Marie Barbançon (supra-libros) Fifth Edition. Adams W-148; Norman 2212.—[*Bound with:*] WEYER. *De lamiis liber: Item de commentitiis jejuniis.* Basel: Heirs of Johannes Oporinus, 1577. 4° (249 x 180 mm). Collation: A-I^4 K^2. 38 leaves. Roman type. 2 woodcut portraits. (Minor marginal worming.) FIRST EDITION, an abridged version of *De praestigiis daemonum.* Adams W-141; Binz p. 184; NLM/Durling 4733; Norman 2222.

Estimate: $2,000-3,000

0857

WEYER, Johann (1515-1588). *De praestigiis daemonum. Von Teuffelsgespenst Zauberern und Gifftbereytern / Schwartzkünstlern / Hexen und Unholden.* Translated by Johann Füglin. Frankfurt am Main: Nikolaus Bassée, 1586.

2° (313 x 205 mm). Gothic type, title in red and black, with hand-colored title vignette, woodcut illustrations in text. (Minor worming to last few pages, light browning.) Contemporary blind-stamped vellum (upper joint cracked).

Fifth (?) edition in German, rivised and enlarged. With three new appendices definding Weyer's views against the attacks of Jean Bodin. Norman 2218.

[*Bound with:*]

BODIN, Jean (1530-1596). *De magorum daemonomania. Vom aussgelasnen Wütigen Teuffelsheer Allerhand Zauberern / Hexen unnd Hexenmeistern... Gegen des Herrn Doctor J. Wier Buch von der Geister verführungen.* Translated from French to German by Johann Filchart. Strassburg: Bernhart Jobin, 1591.

2° (313 x 205 mm). Gothic type, title in red and black. (Light browning.)

Third edition in German. Bodin, a defender of the existence of witchcraft, attacked Weyer on scholarly and legal grounds. Bodin first published his work in French in 1580. BM/STC *German* p. 133; Norman 254.

Estimate: $1,000-1,500

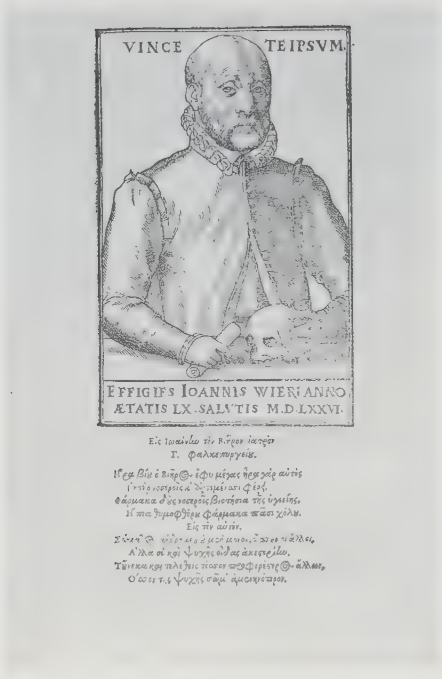
0858

WEYER, Johann (1515-1588). *Medicarum observationum rararum liber I. De scorbuto. De quartana. De pestilentiali angina, pleuritide, & peripneumonia. De hydropis curatione. De curatione meatuum naturalium clausorum, & quibusdam alijs.* Basel: Johannes Oporinus, 1567.

2° (212 x 166 mm). Collation: a-p^4. 59 leaves. Roman type. Woodcut illustrations in text. (Minor foxing, lacks blank p4.) Disbound.

FIRST EDITION. Weyer's description of the history, analysis, etiology, diagnosis, prognosis, hygienical and medical treatment of scurvy, which forms the first chapter of his *Medical observations,* was often reprinted. He identified bad water and coarse and decaying foods as the causes of scurvy, and recommended scurvy-grass, *Cochlearia offocinalis* (illustrated in two woodcuts), as a remedy. Binz states that it was still being used as an antiscorbutic in 1895. Adams W-150; Binz p. 153; NLM/Durling 4738; Norman 2219.

Estimate: $800-1,200


VINCE TEIPSVM
EFFIGIES IOANNIS WIERI ANNO ÆTATIS LX. SALVTIS M.D.LXXVI.

860

859

WEYER, Johann (1515-1588). *Histoires, disputes et discours, des illusions et impostures des diables, des magiciens infames, sorcieres & empoisonneurs... Deux dialogues de Thomas Erastus professeur en médecine à Heidelberg, touchant le pouvoir des sorcières, & de la punition qu'elles meritent.* Translated by Jacques Chouet. N.p.: Jacques Chouet, 1579. 8° (165 x 102 mm). Contemporary calf. (rebacked). First edition of Chouet's translation. NLM/Durling 4737; Norman 2215. — WEYER. *Cinq livres de l'imposture et tromperie des diables: des enchantements & sorcelleries.* Translated by Jaques Grévin. Paris: Jaques des Puys, 1569. 8° (164 x 102 mm). Woodcut title vignette. (Ownership inscription erased from title page.) 18th-century tree sheep, spine elaborately gilt, red morocco lettering piece. (Light wear to spine ends and joints). Second edition. Norman 2214. — WEYER. *De ira morbo, eiusdem curatione philosophica, medica & theologica, liber.* Basel: Heirs of Johannes Oporinus, 1577. 8° (155 x 97 mm). Woodcut device on title page. Disbound, in modern wrappers from an anthiphonalon paper. FIRST EDITION. NLM/Durling 4732; Norman 2221. — WEYER. *Medicarum observationum rararum liber I.* Amsterdam: Peter Montanus, 1657. 12° (126 x 75 mm). Woodcut title vignette. (Some dampstaining.) Contemporary vellum, spine ink lettered. *Provenance*: Early marginalia on front free endpaper. Second edition. NLM/Krivatsy 12986; Norman 2220.

(4)

Estimate: $1,200-1,800

860

WEYER, Johann (1515-1588). *De praestigiis daemonum, & incantationibus ac veneficiis libri sex, postrema editione sexta aucti & recogniti. Accessit liber apologeticus, et pseudomonarchia daemonum.* Basel: *Heirs of* Johannes Operinus, 1583. 4to (236 x 173 mm). Sixth edition. NLM/Durling 4736; Norman 2213; *[Bound with:]* WEYER. *De lamiis liber: Item de commentitiis jejuniis.* Basel: *Heirs of* Johannes Operinus, 1582. 4to (236 x 173 mm). 2 woodcut portraits. (Light dampstaining at end.) Second edition. Norman 2223. 2 works bound in one volume. Contemporary calf. (Some wear). *Provenance*: Rev. William John Woodcock (inscription on front pastedown); Melton Museum Library (bookplate on upper cover). — WEYER. *Opera omnia.* Amsterdam: Peter vanden Berge, 1660. 4to (192 x 157 mm). Title printed in red and black, engraved title vignette, engraved portrait frontispiece and woodcut illustrations in text. (Light browning.) Early 19th-century mottled vellum. First collected edition. NLM/Krivatsy 12984; Norman 2224. — WEYER. *Histoires, disputes et discours des illusions et impostures des diables, des magiciens infames, sorcieres et empoisonneurs...* Edited by Désiré-Magloire Bourneville.

Paris: Bureaux de Progrès Médical, A. Delahaya et Lecrosnier, 1885. 2 volumes. 8vo. Modern quarter morocco, original printed wrappers bound in. *Provenance*: Presentation copy, inscribed and signed by Bourneville: "A ma bonne amie et chère / collaboratrice en Diablerie, Jeanne Charcot / Son bien dévoué / Bourneville" (on front free endpaper). Limited Edition, number 16 of a total edition of 500 sets. A modern edition of Jacques Chouet's 1579 translation. Norman 2216. — Alexandre AXENFELD (1825-1876). *Jean Wier et la sorcellerie.* Paris: Germer Baillière, 1866. 8vo. Original printed wrappers. *Provenance*: Presentation copy, inscribed: "A monsieur le docteur Motet / offert par son res dévoué / Axenfeld" (on title page). FIRST EDITION. Norman 2225. — Carl BINZ (1832-1913). *Doctor Johann Weyer ein rheinischer Arzt der erste Bekämpfer des Hexenwahns.* Bonn: Marcus, 1885. 8vo. Original printed wrappers, uncut. FIRST EDITION. Norman 2226. — Carl BINZ. *Doctor Johann Weyer ein rheinischer Arzt der erste Bekämpfer des Hexenwahns.* Berlin: Hirschwald, 1896. 8vo. Modern cloth. *Provenance*: Herbert M. Evans (his autographed catalogue description of this book laid in). Norman 2227. (7)

Estimate: $1,000-1,500

861

WHARTON, Thomas (1614-1673). *Adenographia: sive glandularum totius corporis descriptio.* London: J.G, 1656.

8° (162 x 97 mm). 4 engraved plates inserted on tabs (library inkstamps on all plates, some browning and spotting to text throughout). Modern panelled calf antique, gilt spine. *Provenance*: Edinburgh Medical Society (inkstamp on plates).

FIRST EDITION. The first detailed description of the glands and classification into excretory, reductive, and nutrient glands. Wharton correctly described the function of saliva in mastication and digestion, and extended Harvey's description of the placenta. Garrison-Morton 1116; NLM/Krivatsy 12973; Wing W-1576; Norman 2228.

Estimate: $800-1,200

862

WHITE, Charles (1728-1813). *Cases in surgery, with remarks ... to which is added an essay on the ligature of arteries by J. Aikin, Surgeon.* London: W. Johnston, 1770. 8° (200 x 124 mm). 7 folding engraved plates, plate VI by J. Mynde (fl. 1740-1770); plate VII by J. Miller after Jan van Rymsdyk (fl. 18th c.) (some foxing throughout). Contemporary speckled calf (joints cracked). *Provenance*: Dr. Taylor (presentation copy, inscribed by the author); Port Pitt Library (tooled on spine). FIRST EDITION. Norman 2231. — WHITE. *A Treatise on the management of pregnant and lying-in women, and the means of curing, but more especially of preventing the principal disorders to which they are liable.* London: Edward and Charles Dilly, 1773. 8° (203 x 122 mm). 2 engraved plates by Bottomly (some occasional light soiling and browning to text). Contemporary calf. FIRST EDITION. White was the first since Hippocrates "to make any substantial contributions towards the solution of the aetiology and management of puerperal fever" Garrison-Morton). He was also the first to emphasize the importance of ventilation, cleanliness, and the isolation of infected patients during childbirth. Garrison-Morton 6270. Norman 2232. — WHITE, Charles. *An inquiry into the nature and cause of that swelling in one or both of the lower extremities which sometimes happens to lying-in women.* Warrington: W. Eyres, for C. Dilly (London) and C. Elliot (Edinburgh), 1784. 8° (209 x 129 mm). 3 folding engraved plates by L. Bonnor (small tear to plate 1, not effecting image). Quarter calf antique. *Provenance*: Dr. Monro (presentation copy, inscribed by the author). Garrison-Morton 6271; Norman 2233. (3)

Estimate: $2,000-3,000

863

WHITE, Gilbert (1720-1793). *The Natural History and Antiquities of Selbourne.* London: T. Bensley for B. White and Son, 1789.

4° (256 x 198 mm). 2 engraved titles and 7 engraved plates, including 2 folding. Contemporary calf (rebacked, preserving original lettering-piece).

FIRST EDITION. A classic of 18th-century English literature. White's work was an important influence in the popularization of natural history. Rothschild 2550; Grolier *English* 62; Norman 2235.

Estimate: $800-1,200

864

WHYTT, Robert (1714-1766). *An essay on the vitals and other involuntary motions of animals.* Edinburgh: Hamilton, Balfour & Neill, 1751.

8° (201 x 126 mm). (Some light browning and spotting to text throughout). Contemporary gilt-ruled sprinkled sheep, red leather spine label (spine worn). *Provenance*: F.I.G (inkstamp of cipher with coronet).

FIRST EDITION. Whytt proved the existence of reflex actions, and correctly identified the response of pupils to light as a reflex action. He was able to locate this to the compression of the optic thalmus ("Whytt's reflex"). Garrison-Morton 1381; Norman 2237.

Estimate: $1,000-1,500

865

WHYTT, Robert (1714-1760). *Observations on the nature, causes and cure of those disorders which have been commonly called nervous hypochondriac, or hysteric, to which are prefaced some remarks on the sympathy of the nerves.* Edinburgh: for T. Beckett and P. Du Hondt, London, and J. Balfour, Edinburgh, 1765.

8° (205 x 124 mm). 18th century mottled calf (rebacked).

FIRST EDITION. "The first important English work on neurology after Willis" (GM). Whytt applied the results of his neuro-physiological research to nervous diseases, explaining them in terms of nerves' "sentient and sympathetic power." Garrison-Morton 4841; Norman 2238.

Estimate: $1,000-1,500

866

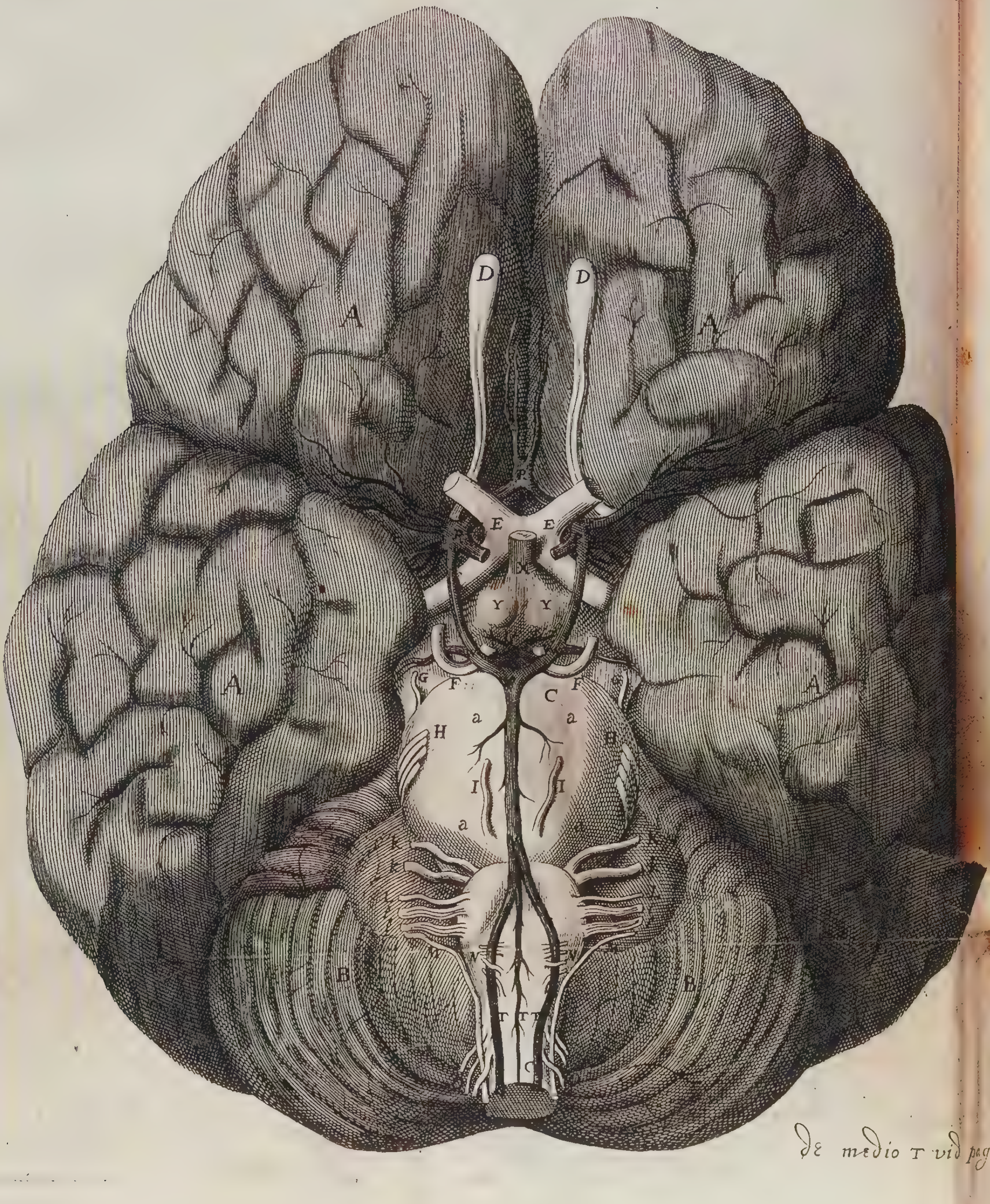
WILLIS, Thomas (1621-1675). *Cerebri anatome: cui accessit nervorum descriptio et usus.* London: Ja. Flesher for Jo. Martyn and Ja. Allestry, 1664.

4° (205 x 152 mm). Engraved portrait of author tipped in on verso of imprimatur. 15 engraved plates (11 folding), unsigned, but drawn by Sir Christopher Wren (1632-1723) and Richard Lower (1631-1691), and probably engraved by David Loggan (1635-1692). Contemporary calf gilt (rebacked). *Provenance*: Charles Cockburn (bookplate).

FIRST EDITION. "The most complete and accurate account of the nervous system which had hitherto appeared, and the work that coined the term "neurology"" (GM). Willis, Sedleian Professor of Natural Philosphy at Oxford University, was dissatisfied with existing accounts of the brain, and so conducted brain dissections himself, with the aid of his students Christopher Wren, Richard Lower and Thomas Millington (an early recorded instance of collaborative scientific research). Garrison-Morton 1378; Grolier *Medicine* 32A (this copy exhibited); *Heirs of Hippocrates* 538; NLM/Krivatsy 13009; Waller 10315; Wing W-2824; Norman 2243.

Estimate: $8,000-10,000

Figura Iª.



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866 (actual size)

867

WILLIS, Thomas (1621-1675). *De anima brutorum quae hominis vitalis ac sensitiva est, exercitationes duae.* Oxford: Sheldonian Theatre for Ric. Davis, 1672.

4° (191 x 154 mm). 8 engraved plates (5 folding). (Some light browning to text.) Contemporary panelled calf gilt (borken).

FIRST EDITION, Oxford imprint. Willis's discourse on the two souls which he believed man had; the "brutish" or corporeal soul (which man has in common with animals), contained within the blood and the nervous system; and the rational and immortal soul, unique to man. Willis expanded upon the neurological ideas which he had introduced in *Cerebri anatome*, and described how the five senses transmit information through the nervous system and to the brain. As in many of his works, Willis went beyond anatomical investigation and interpretation to more ambitious speculation. Many of his hypotheses bore significant fruit, even if not entirely accurate in themselves. Garrison-Morton 1544; 4793; 4966; NLM/Krivatsy 13014; Wing W-2825; Norman 2244.

Estimate: $2,000-3,000

868

WILLIS, Thomas (1621-1675). *De anima brutorum quae hominis vitalis ac sensitiva est, exercitationes duae.* London: William Wells and Robert Scott, 1672. 4° (202 x 155 mm).

8 engraved plates (5 folding). (Minor foxing to titlepage and dedication; light browning to text.) Contemporary reverse calf gilt, gilt arms on covers (worn, corners rubbed, joints cracked, spine defective). *Provenance*: Lin Mussat (inscriptions); G. Mussat (inkstamp).

FIRST EDITION, London imprint. NLM/Krivatsy 13015; Wing W-2827; Norman 2245.

Estimate: $2,000-3,000

869

WILLIS, Thomas (1621-1675). *De anima brutorum quae hominis vitalis ac sensitiva est, exercitationes duae.* London: E.F for Richard Davis, 1672. 8° (152 x 96 mm). 8 folding engraved plates (a few small tears to plates). Contemporary calf (rebacked in morocco, corners restored, some cracking to joints). *Provenance*: Robert Woodward, 1694 (inscription); Abraham Simmonds (gift inscription, 1701); G. Woodward (inscription); Dickinson (inscription); Frederick Wood Jones (1879-1954), anatomist (bookplate). Second edition (preceded by the 4° first edition, also 1672) with the E.F for Richard Davis state of the title. NLM/Krivatsy 13016; Wing W-2826; Norman 2246. [*With*:] WILLIS. *Two discourses concerning the soul of brutes, which is that of the vital and sensitive of man.* Translated by Samuel Pordage (1633-1691). London: for Thomas Dring, and John Leigh, 1683. 2° (315 x 193 mm). 7 engraved plates containing 8 numbered figures. (Some minor browning and foxing to text, G3 torn, a few minor marginal repairs, tiny hole in D4). Contemporary calf (rebacked, corners repaired, endpapers renewed). FIRST EDITION IN ENGLISH. Wing W-2856; Norman 2247.

Estimate: $2,000-3,000

870

WILLIS, Thomas (1621-1675). *Pharmaceutice rationalis sive diatriba de medicamentorum operationibus in humano corpore* [Oxford:] [University Press at the] Sheldonian Theatre, 1674-75.

2 volumes, 12° in 6s (147 x 79 mm), *pars secunda* 4° (198 x 149 mm). 3 folding engraved plates, with images on both recto and verso, numbered I-VI [Vol. 1]; 8 engraved plates, 2 folding (endpapers renewed) [Vol. 2]. Contemporary English rough calf, spine gilt [Vol. 1]; contemporary English mottled sheep, gilt spine (worn) [Vol. 2]. *Provenance*: ?Fountaine Library at Narford, Norfolk (gilt stamped elephants' heads added in compartments of spine of Vol. 1); A. Taylor (inscription, Vol. 2)

Two 4° and two 12° editions of the first part of *Pharmaceutice rationalis* were published in 1674; the Norman copy belongs to the 12° edition that was reserved for the London bookseller Robert Scott. The Sheldonian Theatre also published the second part in 4° and 12° editions. Wing lists the 4° edition first, but priority is unclear. This, Willis' last published work, described the anatomy and physiology of the thoracic and abdominal organs. The work includes numerous case histories, discoveries and hypothesies, in the same vein as his other works. Garrison-Morton 3926, 5086; NLM/Krivatsy 13035; Wing W-2845, W-2846; Norman 2248.

(2)

Estimate: $1,500-2,000

›871

WILLUGHBY, Francis (1635-1672). *The ornithology ... in three books ... to which are added three considerable discourses ... I. Of the art of fowling ...; II. Of the ordering of singing birds; III. Of falconry by John Ray*. Edited by John Ray (1627-1705). London: A.C. for John Martyn, 1678. 2° (354 x 227 mm). Title printed in red and black. 80 engravings, 2 printed tables (minor foxing to title page; some slight browning to text and some plates, repairs to lower right corner of plate 62 and margin of pp. 213-214). Contemporary panelled sheep (rebacked, preserving original gilt spine label, repairs). *Provenance*: Edward Fenwick Boyd (bookplate); George James Boyd Masters (gift inscription from Sybil Mary Masters, Boyd's grand-daughter).

FIRST EDITION IN ENGLISH. After Willughby's death in 1672, Ray edited their notes and research, and "The Ornithology" was first printed in 1676, in Latin. The first English edition included additions by Ray. Willughby and Ray devised a morphological system of classification of birds, using shape and size of body, beak and wing. Wing W-2880; Norman 1792.

Estimate: $1,500-2,000

○872

WILLUGHBY, Francis (1635-1672). *De historia piscium libri quatuor.* Oxford: Sheldonian Theatre for the Royal Society. 1686. 2° (378 x 249 mm). Engraved title by Paul van Somer; 187 engraved plates. Contemporary calf, gilt arms on sides (rebacked, preserving original gilt spine, corners renewed).

FIRST EDITION. The work was a collaboration between Willughby and John Ray (1627-1705), and includes essays on the definition of the fish, on their anatomy, and on their phsiology. The work divides fish according into the Aristotelean categories of *Cetacei*, *Cartilaginei*, and *Spinosi*, and includes a description of the reproductive organs and a rejection of the theory of reproduction through spontaneous generation. Wing W-2879; Norman 1793.

Estimate: $2,000-3,000

›873

WISEMAN, Richard (1622?-1676). *A treatise of wounds*. London: R. Norton for Richard Royston, 1672. 8° (171 x 109 mm). A-I^{8} K^{4} 2B-2K^{8}. Contemporary blind-ruled sheep. *Provenance*: William Wythergh (inscription).

FIRST EDITION. Wiseman gained experience as a military surgeon during the English Civil War, for much of which he was in attendence upon the Prince of Wales. At the Restoration in 1660, he was made "surgeon in ordinary for the person," and the following year surgeon by Royal Warrant to Charles II. He is credited as "the first of the really great surgeons who lifted the surgical profession from its state of subordination to the physicians" (DNB). His works reflected careful and scientific observation. Dr. Johnson considered them "a mine of good surgical nomenclature" (DNB). Wing W-3110; Norman 2252.

Estimate: $3,000-4,000

›874

WISEMAN, Richard (1622?-1676). *Severall chirurgical treatises*. London: E. Flesher and J. Macock for R. Royston and B. Took, 1676. 2° (312 x 197 mm). Contemporary speckled calf (rebacked). *Provenance*: Dr. William Standfast (gift to:) Charity School Chamber, Nottingham (bookplate and note of donation).

FIRST EDITION. The treatises include over 600 case histories documentng the treatment of tumors, ulcers, diseases of the anus, wounds, gun-shot wounds, fractures & lucations, venereal disease, and the king's-evil, or scrofula. Wiseman was the first to advocate early amputation of infected limbs, before disease could spread throughout the body, contrary to common practice. Garrison-Morton 5573; NLM/Krivatsy 13083; Wing W-3107; Norman 2253.

Estimate: $1,500-2,000

›875

[WITCHCRAFT]. — [FILMER. Robert]. *An advertisement to the jury-men of England, touching withches. Together with a difference between an English and Hebrew witch.* London: I.G. for Richard Royston, 1653. 4° (179 x 137mm). 24pp. Modern half calf. FIRST EDITION. Filmer "sounded a moderate and progressive note...while he did not deny the existence of witchcraft" (Norman), and attacked and rebutted treatises by William Perkins (1608) and Martin del Rio (1598). Wing F-909; Norman 794. — John FARRIAR (1761-1815). *An essay towards a theory of apparitions.* London: J. & J. Haddock for Cadell and Davies, 1813. 8° (181 x 115mm). Half-title. Contemporary half calf (rebacked). FIRST EDITION. Offers a physio-pathological explanation for ghosts, apparaitions and other supernatural visitations, demonstrating that their cause lies in "a morbid disposition of the brain." Hunter & Macalpine, p.543; Norman 790. — John GAULE (1604?-1687). *Select cases of conscience touching witches and witchcrafts.* London: W. Wilson for Richard Clutterbuck, 1646. 12°. Contemporary unlettered sheep, early paper label, edges sprinkled red. A fine copy. A sensible, rationalizing essay, written during the witch-hunt phobia which seized eastern counties of England at this time, considering whether witches exist (Gaule answers in the affirmative), what types there are, how they may be known, whether a witch may repent and be saved, etc. Wing G-379; Norman 877. — [John WAGSTAFFE (1633-1677)]. *The question of witchcraft debated; or a discourse against their opinion that affirm witches.* London: [no printer], 1669. 8° (145 x 92mm). (Minor stains and browning). Contemporary unlettered sheep (slightly rubbed). A good copy. FIRST EDITION. A rationalistic attack on witch-hunters, affirming that witches' existence is proven "neither from Scripture, nor History, nor solid reason: for I do not value Platonick dreams, similitudes and fabling whimsies" (preface). Wing W-198; Norman 2172. — Francis HUTCHINSON (1660-1739). *An historical essay concerning witchcraft: with observations upon matters of fact*, London: R. Knaplock and D. Midwinter, 1718. 8° (192 x 122mm). Half title, last leaf with publisher's advertisement. Contemporary blind-panelled calf (rebacked, preserving original spine and spine label). FIRST EDITION. "Valuable for its analyses of famous witch trials...and for its first-hand accounts of the witch-terror by those who survived it" (Norman). Norman 1129. — ADY, Thomas (fl.1655). *A perfect discovery of witches.* [London: R.I for H. Brome, 1661]. 4° (178 x 131 mm). (Imprint cropped off title page, and some letters of title shaved). Third edition. A refutation of belief in witchcraft, arguing that current persecution of witches had no scriptural authority. Wing A-676; Norman 16. — [Friedrich von SPEE (1591-1635)]. *Cautio criminalis. Seu de processibus contra sagas liber. Das ist, peinliche Warschawung von Anstell und Führung dess Processes gegen die angegebene Zauberer, Hexen und Unholden.* Frankfurt am Main: Anthoni Hummen, 1649. Third edition. A powerful indictment of the witchcraft mania; Spee had been confessor to many condemned as witches in Würzburg in the 1620s and "exposed the slipshod and corrupt methods by which convictions were obtained...a vivid first-hand account of the tortures perpetrated upon the accused in order to obtain confessions" (Norman). Norman 1985. — [*Bound with*:] Johann Matthaeus MEYFARTH (1590-1642). *Die hochwichtige Hexen-Errinerung.* Leipzig: Johann Simon Ficken and Johann Policarp Seybolden, 1666. Later edition. A Protestant denunciation of the witchcraft mania, assailing the judges who profited from convicting witches. Norman 1505. Together 2 vols. in 1, 4° (193 x 155mm). Contemporary calf gilt, gilt-ruled spine, speckled edges. — Balthasar BEKKER (1634-1698). *Die bezauberte Welt.* Amsterdam: Daniel von Dahlen, 1693 (altered to 1698 in manuscript). 4° (221 x 168mm). Wooodcut portrait on title. Contemporary sheep (boards worn, spine abraded). *Provenance*: Ernest Jones (1879-1958), biographer of Freud (signature dated 1910 on front pastedown). First edition in German of a refutation of the existence of witches, previously published in Dutch in 1591, attacking the Catholic church's role in fostering witch-hunt hysteria. NLM/Krivatsy 1058; Wellcome II, 133; Norman 162. (7)

Estimate: $3,500-4,500

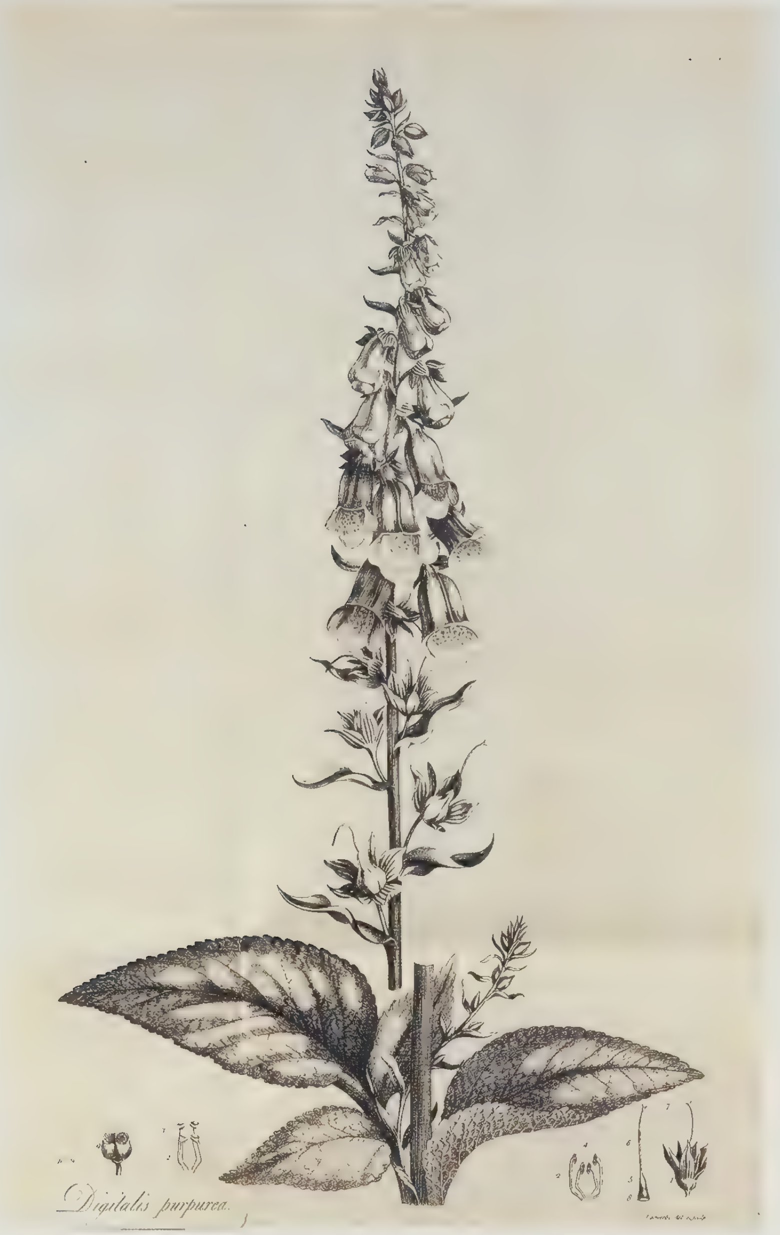
›876

WITHERING, William (1741-1799). *Dissertatio medica inauguralis, de angina gangraenosa.* Edinburgh: Auld & Smellie, 1766.

8° (195 x 127 mm). Disbound.

FIRST EDITION. Withering's medical thesis at Edinburgh University, on scarlet fever, and the best clinical description then written. Only a few copies of the thesis were published. Over 20 years later, when Withering was chief physician at Birmingham General Hospital, an epidemic of scarlet fever caused Withering to turn his attention to the subject again. Norman 2254.

Estimate: $1,000-2,000


Digitalis purpurea.

877

WITHERING, William (1741-1799). *An account of the foxglove, and some of its medical uses.* Birmingham: M. Swinney for G.G.J. and J. Robinson, 1785.

8° (225 x 141 mm). Engraved folding plate by James Sowerby (1757-1822), copied and reversed from the plate in Curtis' *Flora Londiensis* (half inch tear to plate, not affecting image; some staining throughout; uncut). Original blue boards (rebacked in tan paper, worn).

FIRST EDITION. The results of 10 years of observations of the treatment of congestive heart failure with leaves of the foxglove (*Digitalis purpurea*). The use and dosage of the drug digitalis at the end of the 20th century has barely changed from the recommendations made by Withering. The author's great interest in botany, and his works published on the subject, led to the witticism during the long illness that finally led to his death "the flower of physicians is indeed Withering." Garrison-Morton 1836; *Heirs of Hippocrates* 1039; Hunt 676; NLM/Blake, p.493; Osler 4261; Waller 10378; Norman 2255.

Estimate: $8,000-10,000

878

WOLFF, Caspar Friedrich (1733-1794). *Theoria generationis.* Halle: Hendel, 1759.

4° (197 x 160 mm). 2 engraved folding plates. Old quarter calf (rebacked with buckram).

Provenance: Charles Otis Whitman (ink stamp on front free endpaper); Howard B. Adelmann (signature on title).

FIRST EDITION. "Wolff observed in great detail the early processes of embryonic differentiation. He disposed of the 'preformation' theory, substituting his view that the organs are formed from leaf-like (blastodermic) layers" (Garrison-Morton). Garrison-Morton 470; Osler 4266; Norman 2257.

Estimate: $1,200-1,800

879

[WORCESTER, Edward Somerset, Earl of (1601-1667)]. *A Century of the Names and Scantlings of such Inventions, as at present I can call to mind to have tried and perfected.* London: J. Grismond, 1663.

12° (128 x 77 mm). Without the rare 34-page supplement. Contemporary calf (rebacked, worn). *Provenance*: Richard Comes (early signature on final leaf verso); Henry Utrick Reay, Killingworth House near Newcastle upon Tyne (gift inscription from "Mr. Brand" [probably John Brand, 1744-1806, antiquary and author of *History of Newcastle-upon-Tyne*] on front flyleaf, dated 1803); Rev. William Charles Hall, Norfolk (etched armorial bookplate).

FIRST EDITION. In which he suggested a calculating machine (no. 84): "an Instrument whereby persons ignorant in Arithmetick may perfectly observe Numerations and Subtractions of all Summes and Fractions"; and an hydraulic machine (no. 68) "for driving up water by fire." "This was a very ingenious adumbration of a steam pumping-engine, but there is no evidence of any practical attempt by Worcester to give effect to such an idea" (DNB). Wing W-3532; Norman 1975.

Estimate: $800-1,200

880

WRIGHT, Thomas (1711-1786). *An original theory or new hypothesis of the universe, founded upon the laws of nature, and solving by mathematical principles the general phaenomena of the visible creation; and particularly the Via Lactea.* London: H. Chapelle, 1750.

4° (284 x 214 mm). Title page printed in red and black. 32 engraved plates, 2 folding, 8 in mezzotint (occasional very minor foxing, some offsetting from plates). Contemporary mottled calf (rebacked).

FIRST EDITION. Wright, a teacher of navigation and a land surveyor by profession, had since at least 1734 sought an explanation of the universe that would accomodate both his religious and scientific views. In his earliest known work, the manuscript of a lecture, Wright described how "the divine center (the center in the moral order) was also the gravitational center (the center in the physical order), and thus Wright required the sun and the other stars to be moving in orbit about this center in order to avoid gravitational collapse" (DSB). His first ideas were modified in *An original theory*, and then further in *Second thoughts*, which was not published in the author's lifetime, but which achieved to his satisfaction the reconciliation of science and religion. Norman 2265.

Estimate: $5,000-7,000

PLATE XIV.

881

YOUNG, Thomas (1773-1829). *A course of lectures on natural philosophy and the mechanical arts.* London: William Savage for Joseph Johnson, 1807.

2 volumes. 4° (273 x 214 mm). 43 engraved plates by Joseph Skelton (c. 1785-post 1850). Plates xxix and xxx hand-colored. Contemporary calf, gilt arms of the Society of Writers to the Signet on covers (rebacked, corners worn).*Provenance*: Society of Writers to the Signet (binding, inscription dated 1813, withdrawal stamps).

FIRST EDITION. Young, a prodigy as an infant, and a doctor by profession, was Professor of Natural Philosophy at the Royal Institution from 1801 to 1803. This work contains revised versions of the lectures he delivered during that time, including his demonstration of the fact of the interference of light, his lecture "On Collision," which first suggested that the word "energy" be used in place of "living force," and his lecture on "Passive strength and friction," defining the ratio between a stressing force and the resultant strain. Norman 2277.
(2)

Estimate: $1,500-2,000

882

YOUNG, Thomas (1773-1829). "On the theory of light and colours." In *Philosophical Transactions* 92 (1802), Part 1, pp. 12-48. London: W. Bulmer for G. & W. Nicol, 1802. 4° (295 x 235 mm). Engraved plate by James Basire. (Some browning to text). Original blue wrappers, "1802" and "1" hand-inked on spine, UNCUT AND UNOPENED (spine worn). FIRST EDITION OF "AN EPOCH-MAKING CONTRIBUTION TO THE THEORY OF LIGHT IN ALL ITS PHASES." Read as the Bakerian Lecture, November 12, 1801, Young firmly endorsed Huygen's wave theory of light, displacing Newton's corpuscular theory which had been favoured for most of the 18th century, and so found explanations for unresolved optical phenomena such as interference. Dibner 152; PMM 259; Norman 2275. — YOUNG. "An account of some cases of the production of colours, not hitherto described." In *Philosophical Transactions* 92 (1802), Part 2, pp. 387-397. London: W. Bulmer for G. & W. Nicol, 1802. 4° (295 x 233 mm). Original blue wrappers, "1802" and "2" hand-inked on spine, UNCUT AND UNOPENED. FIRST EDITION. A further explaination of the wave theory. Norman 2276.
(2)

Estimate: $800-1,200

883

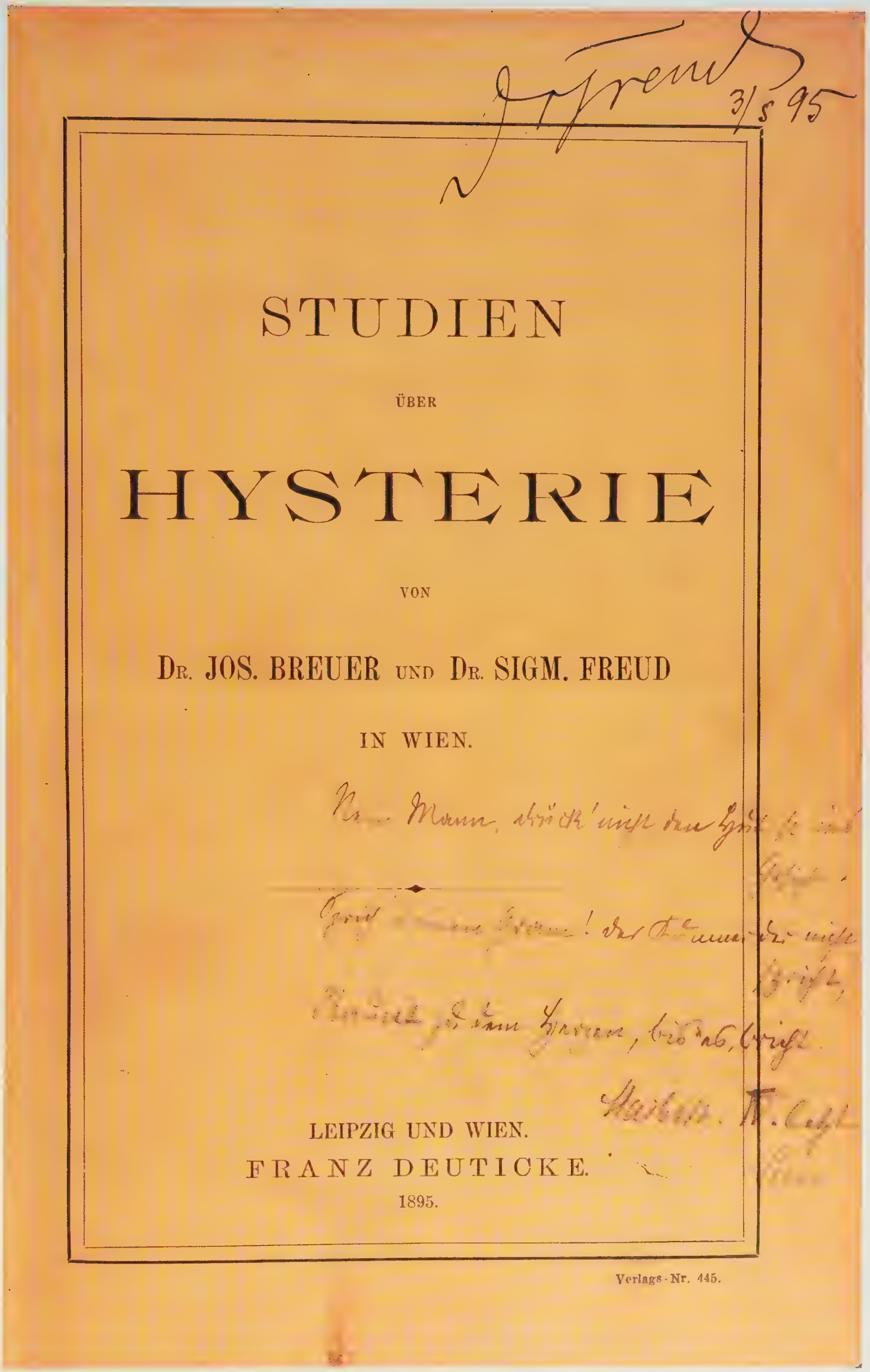
ZAHN, Johann (1641-1702). *Oculus artificialis teledioptricus sive telescopium.* Würzburg: Johannes Georgius Drullmann, Frankfurt (vol. 2): for Quirinus Heyl, 1685-86.

3 volumes in one (308 x 195 mm). Letterpress titles printed in red and black, 11 folding letterpress tables, 27 engraved plates (4 folding), numerous engraved and woodcut illustrations in text. (Lacking portrait and engraved additional title in vol. 1, a few plates lightly browned or with minor stains, one diagram shaved in vol. 2). Later half vellum, marbled boards.

FIRST EDITION of Zahn's treatise on the microscope and the telescope. "The work is particularly valuable for its illustrations of both simple and compound microscopes of the period, including the type of compound instrument used by Robert Hooke (see lot 525). It also contains the earliest description of a portable camera obscura (vo. 1, p. 180). Garrison-Morton 263; NLM/Krivatsy 13208; Waller 11455; Norman 2278. SOLD NOT SUBJECT TO RETURN.

Estimate: $1,000-1,500

END OF SALE



Dr Freud 3/5 95

STUDIEN

ÜBER

HYSTERIE

VON

DR. JOS. BREUER UND DR. SIGM. FREUD

IN WIEN.

[illegible] Mann, drück' nicht den Hut so ins Gesicht.
Greif [illegible]! der Sturm dir nicht bricht,
[illegible] zu dem Herzen, bis ab bricht.
[illegible]

◆

LEIPZIG UND WIEN.
FRANZ DEUTICKE.
1895.

Verlags-Nr. 445.

CONCORDANCES

The Haskell F. Norman Collection Catalogue

Norman	lot	Norman	lot	Norman	lot	Norman	lot
2	629	154	280	275	314	418	358
3	629	160	281	276	314	419	359
4	629	162	875	277	315	420	360
5	465	163	718	278	316	421	360
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16	875	166	284a	283	318	460	362
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106	264	252	301	376	343	526	386
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109	266	254	857	381	345	528	388
110	267	255	302	383	346	529	389
114	268	256	303	384	346	530	390
115	269	257	304	385	347	532	663
116	270	261	305	392	348	537	391
117	271	262	306	393	349	539	392
118	272	263	307	395	350	540	392
119	273	264	308	396	350	541	393
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Norman	lot	Norman	lot	Norman	lot	Norman	lot
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1271	592	1356	620	1502	674	1687	713
1272	593	1357	622	1503	674	1688	714
1273	594	1358	621	1504	674	1690	663
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1275	596	1360	623	1509	675	1692	715
1277	597	1378	478	1529	678	1693	715
1278	598	1380	624	1530	680	1694	716
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1973	797
1974	718
1975	879
1978	737
1979	799
1980	799
1981	799
1982	799
1983	799
1984	798
1985	875
1987	800
1988	801
1989	802
1990	803
2004	804
2005	805
2007	646
2008	646
2010	806
2011	807
2012	808
2013	809
2014	810
2015	810
2016	810
2017	810
2018	811
2025	709
2031	478
2032	812
2036	813
2037	814
2038	815
2039	818
2040	816
2041	817
2042	664
2043	818
2057	667
2058	819
2060	709
2061	820
2062	753
2072	821
2073	360
2080	737
2081	737
2082	737
2083	737
2086	822
2087	823
2088	824
2091	825
2094	826
2095	709
2096	347
2097	827
2098	828
2099	828
2101	829
2113	830
2114	831
2115	831
2116	832
2120	833
2121	834
2122	835
2125	836
2126	837
2130	838
2131	717
2133	839
2150	840
2153	841
2164	842
2165	843
2166	844
2168	663
2174	500
2180	479
2181	845
2187	846
2189	238
2191	847
2200	848
2203	849
2204	718
2205	850
2206	851
2207	851
2209	852
2210	853
2211	855
2212	856
2213	860
2214	859
2215	859
2216	860
2217	854
2218	857
2219	858
2220	859
2221	859
2222	856
2223	860
2224	860
2225	860
2226	860
2227	860
2228	861
2229	380
2230	270
2231	862
2232	862
2233	862
2234	249
2235	863
2236	717
2237	864
2238	865
2239	667
2240	380
2243	866
2244	867
2245	868
2246	869
2247	869
2248	870
2249	663
2252	873
2253	874
2254	876
2255	877
2257	878
2258	717
2259	717
2262	380
2265	880
2272	717
2273	536
2274	536
2275	882
2276	882
2277	881
2278	883
2280	717
2285	676

Norman	lot	Norman	lot	Norman	lot	Norman	lot
m1	668	m40	670	m78	673	m117	673
m2	670	m41	670	m79	670	m118	673
m3	670	m42	673	m80	673	m119	673
m4	669	m43	673	m81	673	m120	673
m5	670	m44	670	m82	673	m121	673
m6	670	m45	673	m83	673	m122	673
m7	670	m46	673	m84	673	m123	673
m8	673	m47	673	m85	673	m124	673
m9	670	m48	673	m86	670	m125	673
m10	670	m49	673	m87	670	m126	673
m11	670	m50	672	m88	673	m127	673
m12	673	m51	670	m89	673	m128	673
m13	670	m51	673	m90	673	m129	673
m14	670	m52	670	m91	673	m130	673
m15	670	m53	673	m92	673	m131	673
m16	670	m54	670	m93	673	m132	673
m17	671	m55	673	m94	673	m133	673
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m19	670	m57	673	m96	673	m135	673
m20	673	m58	673	m97	673	m136	673
m21	670	m59	673	m98	673	m137	673
m22	670	m60	673	m99	673	m138	673
m23	670	m61	673	m100	673	m139	673
m24	670	m62	673	m101	673	m140	673
m25	670	m63	673	m102	673	m141	673
m26	670	m64	673	m103	673	m142	673
m27	670	m65	673	m104	670	m143	673
m28	670	m66	673	m105	673	m144	673
m29	670	m67	673	m106	673	m144A	673
m30	670	m68	673	m107	673	m145	673
m31	670	m69	673	m108	673	m146	673
m32	670	m70	673	m109	673	m147	673
m33	670	m71	670	m110	673	m148	673
m34	670	m72	673	m111	673	m149	670
m35	671	m73	673	m112	673	m150	673
m36	670	m74	673	m113	673	m151	673
m37	670	m75	673	m114	673	m152	673
m38	670	m76	670	m115	670	m152A	673
m39	670	m77	670	m116	673	m153	670

CONCORDANCES

Morton's Medical Bibliography (Garrison and Morton)

Garrison-Morton	lot
61.2	800
68	264
69	804
101	799
102	799
103	545
145.51	432
145.53	717
153	833
154	601
215.2	654
215.5	584
215.5	585
216	589
216.2	848
260	312
261	311
262	525
263	883
264	342
286	352
287	717
292	362
292.1	246
293	637
295	713
297	481
304	745
307	826
308.1	812
311	397
312	301
315	524
316	590
382	521
383	569
385	295
385.1	389
387	514
388	839
389	766
390	365
392	768
392.1	390
395	367
396	618
397	489
399	241
399	769
401.1	463
401.2	840
402	284A
406	665
411.1	284A
462.2	691
465	434
466	437
467	504
469.1	351
470	878
472	309
535	636
537	709
572.2	770
573	771
574	412
576	807
577	808
578	658
581	302
584	716
584	718
586	592
588	490
594.1	462
665	516
665.1	323
757	435
759	502
762	313
762.1	286
765	487
791	631
803	837
860	716
861	328
916	716
920	734
972	472
973	806
974	474
974.1	718
981	799
1094	251
1095	710
1098	760
1099	718
1102	520
1103	391
1104	649
1116	861
1209	475
1210	475
1214	716
1230	636
1249	661
1253	775
1258	283A
1378	866
1379	841
1379.1	756
1381	864
1382	383
1383	797
1385	681
1389	459
1481.1	643
1481.2	334
1481.3	526
1485	445
1486	536
1487	536
1544	867
1545	423
1546	836
1547	351
1549	382
1595	444
1597	737
1598	530
1600	820
1601	531
1687	716
1688	714
1693	640
1730	662
1731	662
1759	356
1763	272
1764	712
1766.5	685
1823	703
1826	263
1828.2	394
1836	877
1837	781
1838.2	646
1838.3	406
1845	663
1966	485
1987.4	737
1988	737
2012	716
2014	716
2029	444
2071.1	828
2094	347
2095	709
2102	747
2102	746

Garrison-Morton	lot
2121	738
2137.2	550
2147	376
2148	253
2149	677
2150	736
2151	620
2154	739
2155	558
2156	378
2159	827
2160	599
2161	677
2195	725
2198	815
2199	303
2204	392
2210	705
2263	305
2264	620
2273	790
2274	307
2276	683
2281	265
2282	266
2283	537
2377	534
2448.1	750
2448.1	751
2467	438
2529	664
2668	772
2671	737
2672	254
2672	257
2703	849
2730	716
2731	594
2733	789
2734.1	716
2743	368
2888	704
2973	596
3216	686
3217	648
3344	308
3345	306
3349	523
3355	716
3356	716
3364	548
3364	549
3419	716
3420	716
3425	676
3426	279
3559	716
3576	729
3583	777
3584	778
3613	716
3671	439
3675	533
3676	533
3679	448
3713	619
3714	378
3714	379
3729	471
3737	831
3789	726
3926	870
3927	337
3983	630
4012	310
4012	716
4013	716
4014	716
4015	834
4020.2	369
4162	286
4204.2	383
4282	366
4284	716
4301	248
4308	779
4407	270
4478.101	738
4485	267
4486	816
4498	346
4511.1	726
4514	817
4515	383
4616	622
4635	368
4731	716
4793	867
4794	508
4840	666
4841	865
4916	852
4919.1	276
4921	370
4922	721
4924	764
4924	509
4965	410
4966	867
4967	624
4969.1	547
4992	478
4992.1	669
5048	716
5052	273
5076	420
5118	573
5119	627
5123	659
5374	736
5409	716
5410	716
5412	419
5414	652
5416	570
5419	452
5423	551
5424	846
5453	763
5571	788
5572	642
5573	874
5578	282
5581	285
5588	284
5589.1	600
5646	401
5820	268
5821	405
5822	716
5827	719
5828	716
5830	716
5833	513
5835	776
5845	719
6017	716
6147	655
6148	728
6151	676
6154	793
6154.1	794
6156	507
6156.3	466
6157	538
6157.1	539
6163.1	274
6253	415
6254	270
6255	277
6268	344
6270	862
6271	862
6320	711
6321	498
6322	346
6323	758
6324	250
6324	250
6324	676
6325	676
6326	834
6374.1	753
6380	675
6451.9	762
6492	375
6604.92	284
6612.9	335
6655	270
6749	301

CONCORDANCES

Other References

Dibner	lot
6	567
7	454
8	457
9	542
9	566
10	519
11	692
12	491
12	716
13	252
14	597
15	321
18	525
21	480
23	560
25	349
26	487
28	575
29	545
30	803
39	324
40	734
41	780
42	360
43	605
44	399
54	467
55	483
57	450
58	387
60	842
80	262
81	407
81	850
82	237
82	236
90	809
92	512
92	511
93	540
101	425
106	688
107	689
108	443
109	613
110	292
112	580
123	502
125	683
126	619
127	551
128	401
140	810
141	458
142	325
143	707
144	716
145	544
145	543
147	527
147	716
148	694
149	824
150	373
151	360
152	882
176	593
177	716
179	441
179	440
181	403
188	748
188	749
189	716
190	313
191	814
192	745
193	338
194	584
194	585

Grolier Medicine	lot
24	352
25	771
26	251
27A	502
27B	435
28A	710
28C	760
29	472
31	412
32A	866
33	655
34	631
35	815
36	423
37	610
38	738
39	302
40	439
41	487
42	248
43A	793
43B	794
44	619
45	254
46	683
47	669
48	834
51B	266
51a	265
52	537
53	551
54	721
56	599
73B	736

Grolier/Horbit	lot
8a	261
8b	262
12	292
13	313
14	324
15	325
18c	457
20b	396
20a	397
22	399
24	407
25b	416
25a	496
28	425
30	443
31a	450
31b	387
35	454
36	458
41	467
42a	629
42b	499
43b	481
43a	639
44	483
45a	487
45b	487
47	512
47	511
50	525
52b	727
53	543
54	544
55	545
56	551
57	566
58	567
61	580
62	591
63	597
64	605
66a	613
68b	561
77a	688
78	692
79b	694
85	733
88	749
88	748
92	780
95b	716
95a	752
96	809
97	810
486	502
20	852

CONCORDANCES

Other References

PMM	lot
17	694
107	467
112	566
113	454
116	688
119	262
120	345
127	502
128	457
129	407
130	458
131	335
135	516
138	522
141	324
143	325
145	823
147	525
148	716
149	631
151	809
154	543
159	816
160	613
161	692
164	624
166	610
169	833
170	738
171a	496
173	491
176	290
179	292
186	439
188n	830
189	487
194	532
195	242
196	426
198	338
199	450
203	315
205	591
206	683
214	717
217	734
224	530
225	674
225	669
225	670
225	670
226	562
229	441
229	440
233b	374
233a	373
238	605
247	541
249	424
250	551
252	597
254	842
256	485
259	882
260	660
261	399
262	589

PRINCIPAL REFERENCES CITED

Adams	H. M. Adams: *Catalogue of Books Printed on the Continent of Europe, 1501-1600, in Cambridge Libraries*. Cambridge, 1967. 2 vols.
Alden and Landis	J. Alden and D. C. Landis. *European Americana: a Chronological Guide to Works Printed in Europe Relating to the Americas, 1493-1776*. New York, 1980-. 5 vols.
Austin	R. B. Austin. *American medical imprints. A guide to works printed in the United States 1668-1820*. Washington, 1961.
Ayer/Zimmer	John Todd Zimmer. *Catalogue of the Edward E. Ayer Ornithological Library*. Chicago, 1926. 2 vols.
Babson/Newton	*A descriptive catalogue of the Grace K. Babson collection of the works of Sir Isaac Newton*. New York, 1950. [With:] H. C. Macomber. *A supplement to the catalogue of the Grace K. Babson collection...* Babson Park. Mass., 1955.
BM/STC *German*	A. F Johnson and others. *Short-title Catalogue of Books printed in the German-Speaking Countries... from 1455-1600 now in the British Museum*. London 1962.
BM/STC German	*Catalogue of Books printed in the German-Speaking Countries... from 1601 to 1700 now in the British Museum*. London 1994.
Briquet	C. M. Briquet. *Les Filigranes*. 2d edition. New York, 1966. [Reprint of the 1907 edition.] 4 vols.
Brunet	J. C. Brunet. *Manuel du libraire et de l'amateur de livres*. Paris, 1860-65. 6 vols. (*Supplément*, 2 vols.)
Carli and Favaro	A. Carli and A. Favaro. *Bibliografia Galileiana (1568-1895)*. Rome, 1896 (reprint: Bologna, 1972).
Caspar	M. Caspar. *Bibliographia Kepleriana*. Munich, 1968.
Choulant-Frank	Ludwig Choulant. *History and bibliography of anatomic illustration*. Translated and annotated by Mortimer Frank. New York 1945.
Church	*A Catalogue of Books relating to the Discovery and Early History of North and South America forming a part of the Library of E. D. Church*. Compiled and annotated by George Watson Cole. New York, 1951. 5 vols.
Cinti	Dino Cinti. *Bibliotheca Galileiana*. Florence, 1957.
Cockle	M. J. D. Cockle. *A bibliography of English military books to 1642 and of contemporary foreign works*. London, 1900.
Cohen-de Ricci	H. Cohen. *Guide de l'amateur de livres à gravures du XVIII*^{e} *siècle*. Revised by Seymour de Ricci. Paris, 1912.
Cushing	Yale University Library of Medicine. *The Harvey Cushing Collection of books and manuscripts*. New York, 1943.
Dibner *Heralds of Science*	*Heralds of Science as represented by two hundred epochal books of Science and pamphlets in the Dibner Library, Smithsonian Institution. Preface and notes by Bern Dibner*. Norwalk and Washington, 1980.
DSB	*Dictionary of Scientific Biography*. New York, 1981. 16 vols. in 8.
Duveen	Denis I. Duveen. *Bibliotheca alchemica et chemica*. London, 1949.
En français dans le texte	*En français dans le texte: dix siècles de lumières par le livre*. Paris: Bibliothèque nationale, 1990.
Evans	C. Evans. *American bibliography: a chronological dictionary...* Chicago, 1903-59 (reprint: New York, 1941-67).
Ferguson	J. Ferguson. *Bibliotheca Chemica*. London, 1954. 2 vols..

Fulton *Boyle*	J. F. Fulton. *A bibliography of the Honourable Robert Boyle*. 2nd edition. Oxford, 1961.
Garrison-Morton	F. H. Garrison and L. T. Morton. *Morton's Medical Bibliography (Garrison and Morton)*. Edited by Jeremy M. Norman. 5th edition. London, 1991.
Gibson	R. W. Gibson. *Francis Bacon: a bibliography of his works and of Baconiana to the year 1750*. Oxford, 1950.
Grolier *American*	*One Hundred Influential American Books Printed before 1900*. New York, 1947.
Grolier *English*	*One Hundred Books Famous in English Literature with Facsimiles of the Title Pages*. New York, 1902.
Grolier/Horblit	Harrison D. Horblit. *One Hundred Books Famous in Science*. New York, 1964.
Grolier Medicine	Haskell F. Norman. *One Hundred Books Famous in Medicine*. Hope Mayo, editor. New York, 1995.
Guerra	F. Guerra. *American medical bibliography 1639-1783*. New York, 1962.
Guibert	A. J. Guibert. *Bibliographie des oeuvres de René Descartes publiées au XVIIe siècle*. Paris, 1976.
Heirs of Hippocrates	*Heirs of Hippocrates. The Development of Medicine in a Catalogue of Historic Books in the Hardin Library for the Health Sciences, the University of Iowa*. Compiled by Richard Eimas. 3rd edition. Iowa City, 1990.
Henrey	B. Henrey. *British Botanical and Horticultural Literature before 1800*. London, 1975.
Honeyman sale	*The Honeyman Collection of Scientific Books and Manuscripts*. London: Sotheby's, 1978-81. 7 vols.
Hoover	*Bibliotheca de re metallica. The Herbert Clark Hoover collection of mining and metallurgy*. Claremont, California, 1980.
Houzeau & Lancaster	J.C. Houzeau and A. Lancaster. *Bibliographie générale de l'astronomie*. London, 1895.
Hunt	*Catalogue of Botanical Books in the Collection of Rachel McMasters Miller Hunt*. Compiled by Jane Quinby. Pittsburgh, 1958-61
Hunter & Macalpine	R. Hunter & I. Macalpine. *Three hundred years of psychiatry 1535-1860*. London, 1963.
Keynes Harvey	G. Keynes. *A bibliography of the writings of Dr. William Harvey*. 3rd edition. Winchester, 1989.
Keynes Hooke	G. Keynes. *A bibliography of Dr. Robert Hooke*. Oxford, 1960.
Lindeboom	G. A. Lindeboom. *Bibliographia Boerhaaviana*. Leiden, 1959.
McGill/Wood	Casey A. Wood. *An Introduction to the Literature of Vertebrate Zoology, based chiefly on the titles in the...Libraries of McGill University, Montreal*. London, 1931.
Miller	C. W. Miller. *Benjamin Frankin's Philadelphia printing: a descriptive bibliography*. Philadelphia, 1974.
Nissen BBI	Claus Nissen. *Die Botanische Buchillustration*. Stuttgart, 1951-56. 2 vols.
Nissen ZBI	Claus Nissen. *Die zoologische Buchillustration*. Stuttgart, 1969. 2 vols.
NLM/Blake	J. B. Blake. *A short-title catalogue of eighteenth century printed books in the National Library of Medicine*. Betheda, 1979.
NLM/Durling	Richard J. Durling, compiler. *A catalogue of sixteenth century printed books in the National Library of Medicine*. Bethesda, Maryland, 1967.
NLM/Krivatsy	Peter Krivatsy, compiler. *A catalogue of seventeenth century printed books in the National Library of Medicine*. Bethesda, Maryland, 1989.

Norman	Jeremy M. Norman and Diana H. Hook. *The Haskell F. Norman Library of Science & Medicine. San Francisco*, 1991. 2 vols.
Olivier	E. Olivier, G. Hermal and R. De Roton. *Manuel de l'amateur de reliures armoriées françaises*. Paris, 1924-38. 15 vols.
O'Malley	C. D. O'Malley. *Andreas Vesalius of Brussels 1514-1564*. Berkeley & Los Angeles, 1965.
Osler	William Osler. *Bibliotheca Osleriana*. Montreal and London, 1969.
Palau	Antonio Palau y Dulcet. *Manual del librero hispano-americano*. Barcelona, 1948-77. 28 vols.
Partington	J. R. Partington. A *history of chemistry*. London, 1961-1970. 4 vols.
Pforzheimer	E. V. Unger and W. A. Jackson (compilers). *The Carl H. Pforzheimer Library. English Literature, 1475-1700*. New York, 1940. 3 vols.
PMM	John Carter and Percy H. Muir, editors. *Printing and the Mind of Man*. Second edition. Munich, 1983.
Pritzel	G.A. Pritzel. *Thesaurus Literaturae Botanicae*. Milan 1950.
Riccardi	Pietro Riccardi. *Biblioteca matematica italiana dalla origine della stampa ai primi anni del secolo XIX*. Milan, 1952. 2 vols.
Russell	K. F. Russell. *British anatomy 1525-1800: a bibliography*. 2nd edition.. Winchester, 1987.
Sabin	Joseph Sabin. *A Dictionary of books relating to America, from its discovery to the present time*. New York, 1858-1936 (reprint, Amsterdam 1961). 29 vols. in 15.
Sarton	George Sarton. *Introduction to the history of science*. Baltimore, 1927-1948. 3 vols.
Singer *Technology*	C. Singer, editor. *A history of technology*. Oxford, 1957-58.
Sotheran	*Bibliotheca chemico-mathematica*. Compiled by H. Zeitlinger. London, 1921-52
Sparrow *Milestones of Science*	*Milestones of Science: epochal books in the history of science as represented in the library of the Buffalo Society of Natural Sciences*. Compiled by Ruth A. Sparrow. Buffalo, 1972.
Stafleu & Cowan TL-2	F. A. Stafleu and R. S. Cowan. *Taxonomic Literature*. 2nd edition. Utrecht and Antwerp, 1976-88. 7 vols.
STC	A. W. Pollard and G. R. Redgrave. *A Short-title Catalogue of Books printed in England, Scotland, & Ireland and of English Books printed abroad*. London, 1976-86-91. Second edition, compiled by Katherine Pantzer. 3 vols.
Tchemerzine	A. Tchemerzine. *Bibliographie d'èditions originales et rares d'auteurs français des XV*^{e}*, XVI*^{e}*, XVII*^{e} *et XVIII*^{e} *siècles. Reproduction de l'édition originale... 1927-1933, avec annotations de Lucien Scheler*. Paris 1977.
Thorndike	Lynn Thorndike. A *history of magic and experimental science*. New York, 1923-1958. 8 vols.
Voet	L. Voet. *The Plantin Press (1555-1589)*. Amsterdam, 1980-83. 6 vols.
Waller	*Biblioteca Walleriana. The books illustrating the history of medicine and science collected by Dr. Erik Waller and bequeathed to the Royal Library of the University of Uppsala...compiled by Hans Sallander*. Stockholm, 1965.
Wallis	P. And R. Wallis. *Newton and Newtoniana 1672-1975: a bibliography*. Folkestone, 1977.
Ward and Carozzi	D. Ward and A. V. Carozzi. *Geology emerging: a catalog illustrating the history of geology (1500-1850) from a collection in the library of the University of Illinois at Urbana-Champaign. Urbana-Champaign*, 1984.

Wellcome	Wellcome Historical Medical Library, London. *A Catalogue of Printed Books*. London, 1962.
Wheeler Gift	W. D. Weaver, editor. *Catalogue of the Wheeler gift of books, pamphlets and periodicals in the library of the American Institute of Electrical Engineers*. New York, 1909, 2 vols.
Whyte	L. L. Whyte, editor. *Roger Joseph Boscovich... Studies of his life and work*. London, 1961.
Willems	A. Willems. *Les Elzevier, Histoire et Annales Typographiques*. Brussels, Paris and The Hague 1880.
Wing	D. Wing. *Short-title Catalogue...of English Books...1641-1700.* 3 vols. New York, 1951, 1972 (2nd ed.), 1982 (2nd ed.)
Zinner	E. Zinner. *Deutsche und Niederlaendische astronomische Instrumente des 11.-18. Jahrhunderts*. 2nd edition. Munich, 1967.

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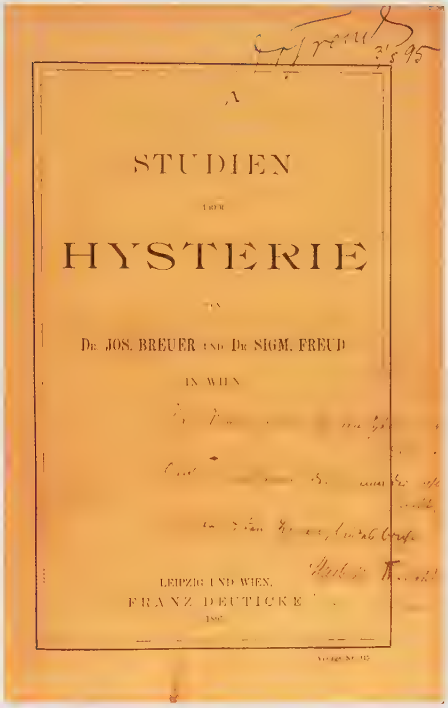

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0489 2205

All photography is produced by Christie's in-house photographers.

Catalogue produced by Vauxhall Pre Press, 21-25 South Lambeth Road, London SW8 1SX Tel: (0171) 582 1188
Printed in England

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